LAPLINK®

GOLD CORPORATE

File Transfer, Synchronization, Remote Desktop

USER'S GUIDE

MN-LGD011-XX-US

Technical Support Contact Information

World Wide Web: Visit www.laplink.com/techsupport/

United Kingdom: Phone +44 (0) 1959 578339, Fax +44 (0)1959 578301

Worldwide: Visit www.laplink.com/world/ on the LapLink web site for a list of international support numbers.

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Contents

1 Introducing LapLink Gold Corporate

Why LapLink Gold?

LapLink Gold Corporate gives you the freedom to leave the office without giving up access to your office computer and network resources. Whether you're traveling on business or working from home, you can still read your e-mail, share the latest files with coworkers, access network programs and databases, browse the Internet and collaborate with colleagues. Things you once could do only in the office you can now do remotely.

Suppose you work at home

Instead of joining the morning rush-hour traffic, you sit down at your home computer, connect to your office, and begin your workday as usual, by tackling your e-mail.

While finishing your orange juice, you read your messages, write new ones, send replies—in other words, you operate much as you would in the office. You're using LapLink Gold. In particular, you're using Remote Control, one of the LapLink Gold services, to operate your office computer from home.

On your home monitor you see what you would have seen had you commuted to work, and you operate your e-mail program as you would have from the office. You can even set up LapLink Gold to print to your home printer for those messages you'll review later.

Forget to get the latest copy of a file before leaving the office? Use File Transfer, another LapLink Gold service, and drag the file from the folder on the office network to its location on your hard drive at home. Since you're updating a file already on your home computer, the file is transferred almost before you know it. (In fact, LapLink Gold merely updates the file, transferring only the parts that have changed.)

Use Remote Control to start a network application and access the company's huge product database. Just as you thought, customers ordered more blue widgets last month than during the previous two months combined! More grist for the quarterly report you're working on.

A final check of your e-mail confirms your suspicions. It's off to Chicago tomorrow for a two-day business trip.

Suppose you're on a business trip

Settling into your hotel room, you notice the card on the desk offering internet connectivity. That's all you need to know; all you have to do now is use the hotel's internet connection to connect to the internet, then open a LapLink Gold connection to get access to your desktop, or to others.

It's been a busy day. You rush through your e-mail, finishing in time to connect to a coworker's computer. Her e-mail sounded desperate: if you're free before 7 o'clock this evening, could you help with the cover art for the annual report?

Now you're looking at her monitor and talking to her at the same time, using another LapLink Gold service, Voice Chat. After some discussion, the two of you agree: make the logo larger and reverse the colors. She'll have a finished draft waiting for you on the network in an hour. And then you can download it using LapLink Gold's File Transfer service later.

Suppose you manage IT support

Imagine that your phone rings at 11:30 at night. Your CEO is calling, requesting that you help her get her laptop up and

running. Now. With LapLink Gold, you can connect to her computer from your home or hotel internet connection, and using Remote Control, troubleshoot the problem yourself.

LapLink Gold can also help spread the workload and share information. Let's say the hotel's internet connection is down when the CEO calls. Using the powerful new Address Book features, all the connection information can be stored cen-trally. This allows you to share saved connections with your IT team, so that your team has all the connection informa-tion that you have at their fingertips. Sharing the Address Book provides your team access, allowing them to trouble-shoot first, and call you last. So you might actually get some sleep.

Staying in touch with the office

Whether you're in a hotel on the road, at home on a Saturday, or with you laptop practically anywhere, LapLink Gold Corporate lets you use whatever connection you have to get access to everything you need. LapLink Gold Corporate supports connecting via modem, a network, a network server, the Internet and more. You determine how to connect by considering your office setup and what you want to accomplish when you are connected, and LapLink Gold helps you to get it done.

Connecting to the office requires that your home computer be able to connect to other computers, and LapLink Gold supports a variety of connection methods. It must also be running LapLink.

Depending on the type of office netwrok and its firewall protection, you can then make any or all of these kinds of connections:

- To your office computer directly via modem.
- To your office computer through the office network VPN, via the internet.
- To your office computer through the Internet.

Connecting directly to your office computer

If your home computer is equipped with a modem or other internet connection, you can connect to the office computer directly.

Leave LapLink Gold running when you leave the office, and make sure you are connected , either by modem or other method. Then connect from home, and run programs and transfer files as you would normally.

If your office computer is attached to a network, you can read your e-mail and access the customary network resources, though you cannot connect to other computers on the network.

Connecting to the office network

If your office has a network, you can connect to the network via a VPN or other methods, and then to any computer running LapLink Gold on the network, including your own. Using the Remote Control service, you can access any network resources normally available to you from the office.

To connect to the office network, simply dial in to a dedicated network dial-up server using Dial-up Networking, use VPN or other connection methods.

Connecting over the Internet

You can also use LapLink Gold to connect to another LapLink Gold computer using a LapLink Everywhere connection. LapLink Everywhere is a subscription service, allowing you to connect in many ways. But your LapLink Everywhere account also serves as a connnection service between LapLink Gold computers. This type of connection gives you the full range of LapLink Gold features from any internet connection. To learn more about about LapLink Everywhere, go to

Most workstations now have direct Internet access over dedicated, high-speed connections. If your office computer is one of these—and you have Internet access from your home computer or your laptop—you can connect to the office using Connect over Internet. If this connection

requires you connect through a firewall, see ”Making an Internet connection to a computer behind a firewall” for more information.

Before connecting over the Internet, set up your office computer for Internet access by publishing its address through the LapLink ILS server. Then be sure to leave LapLink Gold running.

Connecting without running LapLink Gold

There may be times when you need to connect to your office computer running LapLink Gold from another computer that doesn't have LapLink Gold installed. You can transfer files between these two computers using Laplink Everywhere.

To learn more about the capabilities of this option, go to ”Connecting Over the Internet Using Laplink Everywhere.

Connecting at the office

With greater resources at hand, you can make faster connections—and connect in more ways—while working in the office. Connect over a corporate network, for example, for the fastest file transfers. Use a LapLink Gold cable to synchronize your desktop and laptop before and after you travel. And take advantage of your organization's direct connection to the Internet for cheap connections to distant locations.

Connect to other computers on your network

If your office is equipped with a local network (LAN), you can connect directly to any other computer on the network running LapLink Gold, using Connect Over LAN (Network). Because LapLink Gold connections over networks are fast, they are ideal for sending large amounts of data in a short time.

Suppose it's your job to distribute files to several computers every Tuesday. To automate the operation, create an Xchange Agent file by showing LapLink Gold which files to copy and where to copy them. When Tuesday arrives, run the Xchange Agent yourself or schedule it to run unattended, at a time when the computers are usually idle. LapLink Gold automatically connects to the computers, transfers files to the designated folders, and disconnects, all without assistance.

It may also be your job to maintain those computers. Without leaving your desk, you can use Remote Control to troubleshoot problems on other computers, chatting with their users, if necessary.

NOTE A LapLink Gold license, either a single-user license or a special volume license, must be purchased by each person using LaLink in order to use LapLink Gold software. Visit www.laplink.com to learn more about licensing rules and opportunities.

Connect your laptop to your desktop

If you take your laptop—and your work—with you when you leave the office, you know the routine: update files on your laptop before you leave; update files on your desktop when you return.

To update files on either computer, attach a LapLink Gold cable and run LapLink Gold on both computers. A connection opens automatically.

Instead of manually moving files and folders from one computer to another, you can create an Xchange Agent to synchronize your files and folders, so that both computers have the latest versions of each file. You can even set the Agent to synchronize automatically.

Connect to computers over the Internet

Does your office have a direct line to the Internet? By combining LapLink Gold and the Internet, you can connect to computers anywhere in the world.

Use LapLink Gold from the office or the road to connect to other computers. You can connect from your desktop, laptop, even from an internet cafe on the road, using the capabilities of your LapLink Everywhere account. To learn more about the capabilities of LapLink Everywhere, go to "Connecting Over the Internet Using Laplink Everywhere.

If your office has a persistent connection to the internet, use the 'Connect Over ILS' option, and simply supply the published name or address of the host computer

Before you use Connect over Internet, other LapLink Gold users will set up LapLink Gold as a host on their computers so that their e-mail addresses, or other unique identifiers, are "published" through an Internet directory . They then must notify you of their new addresses in order to allow you to connect.

2 Connecting to other computers

How can I connect to other computers?

Determine how to connect to another computer from the resources available to the two computers. For example, are both logged on to the same office network? Then connect over the network. Do both have Internet access? Then connect over the Internet. Use the tables in this section to help decide how to connect. No matter how you connect, you can always use File Transfer, Remote Control, and other LapLink services.

LapLink provides several ways to connect to other computers.

Which method you use depends on the resources available to the computers.

Connecting to the Officet

Can you connect to the Internet on the local computer?	Then connect to another LapLink Gold Corporate Host computer over the Internet this way:	For details see
Yes, and there is no router or firewall at the host end.	Connect to the Internet as usual and then use **Connect over ILS** in LapLink.	page 26
No, but the office has a Windows Remote Access server (RAS).	Use **Connect over Dial-Up Networking** to dial in to a network server and connect over the office network connection.	page 37

Yes, but the host is protected by a fire-wall or router.	Use **Connect Over LapLink Everywhere**, or use the firewall service (see page 28) . For more information on what ports are used by LapLink, go to www.laplink.com/support.	page 31
No, but the office does use a VPN server for access to resources from the Internet.	Establish a VPN connection to the office, then use **Connect Over LAN (Network)** to supply the IP Address of the host computer.	page 20

Connecting over modems, networks, cables, or wireless devices

What resources are available for connections		Then connect to another LapLink computer this way:	For details see
on the local computer?	on the remote computer?		
modem	modem	Use **Connect over Modem** and dial in to the modem on the remote computer. Modem connections are available in all versions of Windows.	page 34
TCP/IP or IPX network	TCP/IP or IPX network	Use **Connect overLAN (Network)**. Network connections are available in all versions of Windows.	page 20
USB, parallel or serial port	USB, parallel or serial port	Attach a LapLink parallel or serial cable to each computer. The connection opens automatically. To connect manually, choose Connect Over Cable. Serial connections are available in all versions of Windows. Parallel connections are available in Windows 95/98 and Windows Me. USB connections are available in Windows 98, ME,2000, XP and 2003.	page 16
wireless device	wireless device	The connection opens automatically as soon as the devices come within range of each other. Wireless connections are available in Windows 95/98 and Windows Me.	page 38

Connecting by cable

When you connect two computers by LapLink cable, attach the cable—serial, parallel, or USB - to both computers and start LapLink on both computers. No separate cable driver installation is required. Autoconnect, the default setting for cable connections, opens a connection automatically. To manually connect, click the Connect Over button on the LinkBar, and then click Cable.
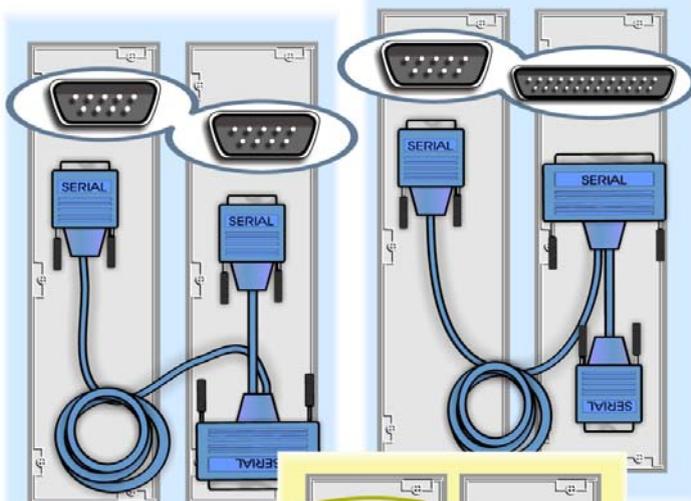
The blue LapLink serial cable has two connectors at one end, but only one connector is attached at a time: Use the larger connector if one of the computers has an older 25-pin serial port. Otherwise, attach one of the smaller connectors to each computer.

Attach one end of the gold LapLink USB cable to a USB port on each

NOTE USB-to-serial adapter or gender-changing devices of any kind are not supported for use with LapLink Gold Corporate!
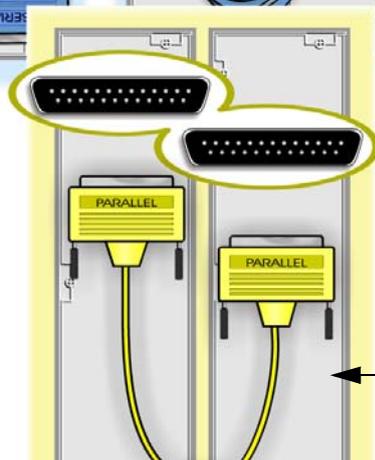
Attach one end of the yellow LapLink parallel cable to a parallel port on each computer.

Only available for WIn95/98/ME

Choose the type of cable—serial, parallel, or USB (Universal Serial Bus)[1] —you are going to use based on the cables and ports you have available.

Ports are the connectors to which you attach cables and peripherals like printers and external modems. To find out which types of ports are available, consult the documentation or the Windows Device Manager for your computer.

Once you decide which kind of cable connection you'll use, plug a LapLink cable into both computers: attach a LapLink serial cable to a serial port on each computer, a LapLink parallel cable to a parallel port on each computer, or a LapLink USB cable to a USB port on each computer.

Before you connect by cable

• Attach an end of a LapLink cable to each computer.

NOTE When attaching the gold cable that comes with LapLink Gold Corporate for the first time, Windows will detect the device and install the drivers automatically. Simply click Next and Finish at the Found New Hardware wizard to complete driver installation and hardware setup.

• Ensure that the proper port—serial, parallel, or USB—is enabled in LapLink on both computers. See "Checklist for cable connections.

• Run LapLink on both computers.

Cables to use for LapLink connections

Use LapLink Gold Corporate's gold USB cable to connect as your first option.

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1 Not all connection types are supported in all Windows operating systems. See the table on page 15 for more information.

If you don't have a USB port available, you can also use a serial or parallel port. You can obtain cables for these connection types from Laplink.

If there is more than one type of port available to you, remember that USB cables, the fastest of the three, transfer up to seven times faster than serial cables. Parallel cables transfer data faster than serial cables.

Connecting to another computer by serial or parallel cable

When you start LapLink on two computers connected by cable, they will automatically connect. Autoconnect, the default setting for cable connections, causes the computers to connect automatically. If you change this setting, you can connect to the other computer manually.

TIP   If the connection does not open automatically, click Port Setup on the Options menu and verify that the appropriate port (COM, LPT, or USB) is enabled for cable.

To manually connect to another computer by serial or parallel cable:

1 Click the Connect Over button on the LinkBar, and then click Cable.

2 In the Connection list, click the name of the computer you want to connect to.

3 Under Services, check the services you want to use, such as File Transfer and Remote Control.

4 Click OK.

TIP   To turn Autoconnect off, click on the Options menu and select Connect. On the Connect tab, clear the Enable Autoconnect box.

Using an Address Book entry to connect using Cable

It's a good idea to create an Address Book entry, especially if you plan to use the connection more than once. LapLink Gold allows you to connect directly from the Address Book, which makes it even easier.

To create an entry in the Address Book for a cable connection:

1 Click the Address Book button on the LinkBar, then click the Add button.

2 In the Description box, type a brief description of the remote computer as a reference.

3 In the Computer Name box, type the exact name assigned to the remote computer in LapLink. Remember this field is case-sensitive.

4 Click the Connection tab. In the Connection Type list, click Cable.

5 Click the Services tab. Choose the services you want to enable when you connect to this computer.

6 Click OK to save this Address Book entry.

Click the Connect button to connect to this computer directly from the Address Book.

Connecting by Cable when multiple cable ports are enabled

If your computer has multiple cable ports enabled, LapLink Gold offers you the option of connecting through the cable connection type you choose.

If you have multiple cable ports enabled, you will see the screen below, which will allow you to choose the cable connection.
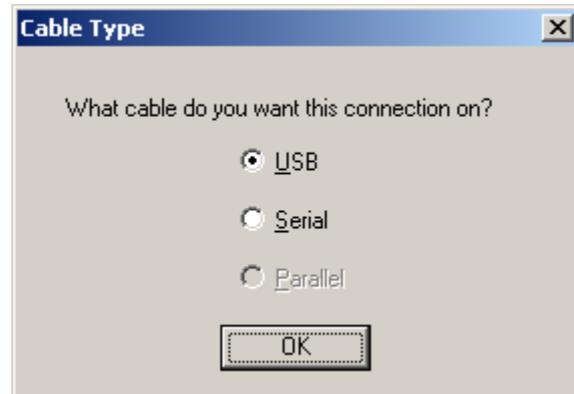
Simply choose the cable port you want to connect through, and click OK. Remember that USB cable speeds are significantly faster than serial or parallel cables.

Connecting over a home or office network

Connect to any other computer running LapLink on your office network (LAN) and use Remote Control, File Transfer, or any other LapLink service. Use Connect over LAN (Network) and click the name of the computer you want to connect to or supply its TCP/IP address.
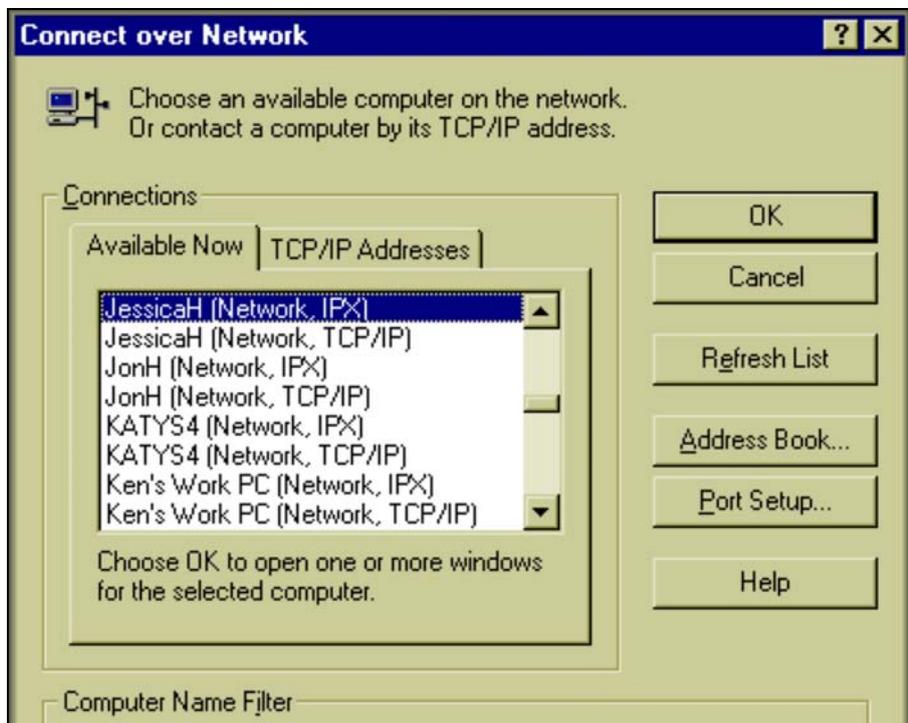
Use Connect over LAN (Network) to link computers on a home or office network.

You can click the name of a computer or switch to the TCP/IP Addresses tab and type the computer's IP address if necessary.

You can establish a LapLink connection to another computer on your home or office network, whether it is an IPX (Novell NetWare) network or a TCP/IP network.

NOTE To simplify routine connections over a network, create Address Book entries. See "Adding an Address Book Entry- General Tab".

You can usually open a network connection simply by clicking the computer's name in a list of LapLink computers on the network. To open a connection to a computer that lies outside your portion (subnet) on a TCP/IP network, however, you must provide the computer's TCP/IP address.

Before you use Connect over LAN (Network)

- The security setup of the host computer must be configured to allow incoming connections. See "Allowing incoming connections.

- The network ports (either TCP/IP or IPX) must be enabled in LapLink on both computers. See "Checklist for Internet connections. If you aren't sure which protocol is being used on your LAN, contact your network administrator.

- LapLink must be running on both computers.

NOTE Not only does Connect over LAN (Network) Connect Over LAN (Network)work over local networks, it also connects over the Internet. For details see "Checklist for Internet connections.

To connect to another computer by network:

1 Click the Connect Over button on the LinkBar, and then click LAN (Network).

2 In the Connect Over LAN (Network) dialog box, click the name of the computer you want to connect to.

   If the computer is not listed and you are attempting to connect over a TCP/IP network, click the TCP/IP Addresses tab. Then do either of the following:

   - In the Connections list, click the name of the computer you want to connect to. The names listed are from the Address Book.

   - Under TCP/IP Name or Address, type the IP address of the host computer.

3 Under Services, check the services you want to use, such as File Transfer and Remote Control.

4 Click OK.

Using an Address Book entry to connect over a home or office network

It's a good idea to create an Address Book entry, especially if you plan to use the connection more than once. LapLink Gold allows you to connect directly from the Address Book, which makes it even easier.

**To create an entry in the Address Book for connecting to a home or office network**

1 Click the Address Book button on the LinkBar, then click the Add button.

2 In the Description box, type a brief description of the remote computer as a reference.

3 In the Computer Name box, type the exact name assigned to the remote computer in LapLink. Remember this field is case-sensitive.

4 Click the Connection tab. Click the down arrow by the Connection Type list. When connecting over LAN (Network), you have two different options for connecting.

   Network:Available Now- This connection type lets LapLink Gold establish the connection

   OR

   Network:TCP/IP Address: This connection type requires you to enter the IP Address of the host machine in order to connect.

5 Click the Services tab. Choose the services you want to enable when you connect to this computer.

6 Click OK to save this Address Book entry.

Click the Connect button to connect to this computer directly from the Address Book.

Finding a TCP/IP address of the host computer

To find out a computer's TCP/IP address in Windows 95 or Windows 98, or Windows ME:

1. On the Options menu, click Port Setup.

2. Click TCP/IP Network in the Ports list, and then click the Configure button.

3. The TCP/IP address appears in the IP Address box.

To find out a computer's TCP/IP address in Windows NT, 2000, XP or 2003:

1. Click the Windows Start button, point to Programs, Accessories, and click Command Prompt.

2. Type `IPCONFIG` and press ENTER.

   The TCP/IP address for that computer appears in the IP Address line.

Filtering the list of available network computers

You can display the name of a particular computer in the Connect Over LAN (Network) dialog box by typing all or part of the name in the Computer Name Filter box; then click Refresh List.

To display the names of all available computers again, click the arrow next to the Computer Name Filter box, click All Computers, and then click Refresh List.

Connecting over the Internet using an ILS

Connect to the Internet using an ILS (Internet locator service) directory server, and you can open connections to other LapLink computers anywhere in the world. To make a computer easy to find on the Internet, LapLink Gold Corporate can"publish" the computer's Internet address to the ILS server.. Other computers can then supply this address to open connections using Connect over ILS from the Connect menu, above the Link Bar.
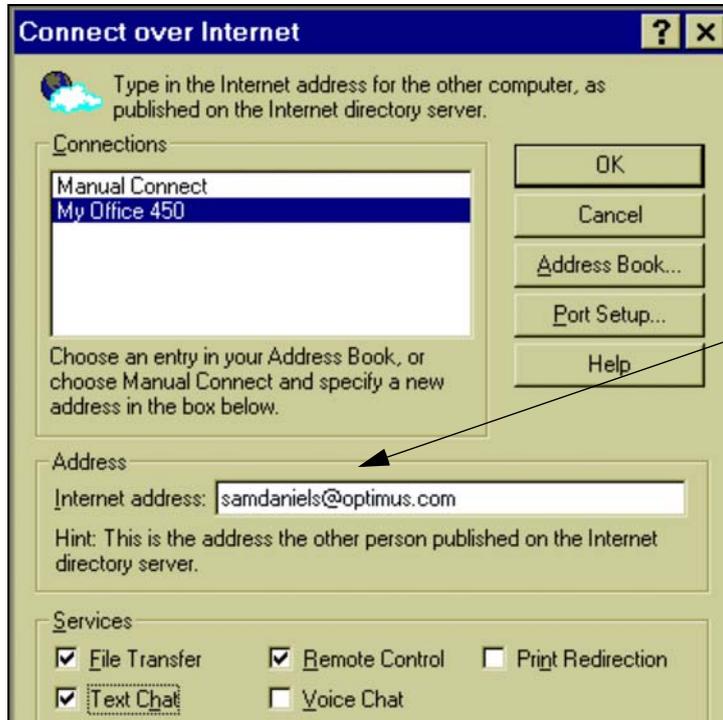
Go online and use Connect over ILS to locate and open connections to LapLink computers anywhere on the Internet.

Make a connection by supplying the address published by a remote computer to the LapLink ILS server.

When you connect to another LapLink computer on the Internet, you can use Remote Control, File Transfer, and any of the other LapLink services you would use when connected directly.

You can also publish your computer's address through an ILS (Internet locator service) like the one hosted by LapLink Software and then connect using Connect over ILS. Simply supply the Internet address published through the ILS.

Before you use Connect over ILS

- Both computers must be actively connected to the Internet.

- The host (remote) computer must have its Internet address published through an ILS (Internet Locator Service). See "Making a computer available for ILS connections of this chapter.

- The security setup of the remote computer must have been configured to allow incoming connections. See "Protecting your security settings with a password.

- The TCP/IP ports must be enabled in LapLink on both computers. See "Checklist for Internet connections.

- LapLink must be running on both computers.

- For more information on connecting behind a firewall or router, go to "Making an Internet connection to a computer behind a firewall".

Using Connect over ILS

To connect to another LapLink computer using ILS:

1 Connect to the Internet as usual.

2 Click the Connect menu above the LinkBar, and then click Connect Over ILS.

3 If you have created an Address Book entry for the connection you want to open, click the Address Book entry, and click Connect.

   Otherwise, click Manual Connect. In the Internet Address box type the remote computer's Internet address (the one the remote computer has published to the ILS Server).

4 Under Services, check the services you want to use.

5 Click OK.

Using an Address Book entry to connect over ILS

It's a good idea to create an Address Book entry, especially if you plan to use the connection more than once. LapLink Gold allows you to connect directly from the Address Book, which makes it even easier.

To create an entry in the Address Book for Connecting over ILS.

1 Click the Address Book button on the LinkBar, then click the Add button.

2 In the Description box, type a brief description of the remote computer as a reference.

3 In the Computer Name box, type the exact name assigned to the remote computer in LapLink. Remember this field is case-sensitive.

4 Click the Connection tab. In the Connection Type list, choose Internet Address.

5 Enter the address the host machine has published to the ILS server.

6 Click the Services tab. Choose the services you want to enable when you connect to this computer.

7 Click OK to save this Address Book entry.

Click the Connect button to connect to this computer directly from the Address Book.

Opening Internet connections using Connect Over LAN (Network)

The ILS server is not required for internet connections when using LapLink Gold Corporate; it merely facilitates these connections. Just as you use Connect Over LAN (Network) for connections on a local TCP/IP network, so you can use it for connections on the Internet, which is simply a global web of TCP/IP networks.

When you use Connect Over LAN (Network), you must supply the computer's public, routable IP address, not an address published through an Internet directory.

Connect Over LAN (Network) is most useful when you connect to computers whose IP addresses never change. For more information about using Connect Over LAN (Network), see "Connecting over a home or office network.

Making a computer available for ILS connections

Internet connections are more easily established by the use of easy-to-remember names or addresses. To make your computer available to other LapLink computers on the Internet, publish its address through an ILS (Internet Locator Service) directory server. LapLink users who know this address can then locate your computer on the Internet and open connections from anywhere in the world. LapLink maintains the LapLink ILS server as a free service to our users..

To allow other LapLink computers to connect to a computer on the Internet, set up LapLink to have the computer's address published through the LapLink ILS.

In Internet Directory Options, specify an e-mail address or some other unique identifier as the Internet address.

Then notify other LapLink users so that they can connect by supplying the Internet address you have specified.

Connecting to computers on the Internet is easy—when you know their IP addresses. But IP addresses can be hard to determine, and they often change. If you dial in to an Internet service provider, for example, your computer may be assigned a different IP address each time you go online.

So how do you make your computer available to other LapLink computers on the Internet? You have your e-mail address (or other unique identifier) "published" as your Internet address. You then let other LapLink users connect to your computer by telling them your Internet address.

NOTEIf the computer is behind a firewall, there are additional requirements. See"Making an Internet connection to a computer behind a firewall, or use LapLink Everywhere. See "Connecting Over the Internet Using Laplink Everywhere

Specify the address to be published and when it will be published—for example, whenever you are using LapLink on the Internet.

Use the LapLink Internet directory to publish your address; the directory is available without cost to LapLink users, and you don't have to sign up to use it.

Publishing your Internet address does not open your computer to unwanted connections. LapLink users who know your published address can connect; others cannot, even if they are using NetMeeting or other programs that rely on Internet directories.

NOTE Only the host computer requires publishing; the guest computer does not.

To set up LapLink to have your computer's address published on the Internet:

1 On the Options menu, click Internet Directory Options.

2 In the Internet Address box, type your e-mail address or another unique identifier.

   This will be your Internet address. Give it (as well as log-in name and password) to any LapLink user you allow to connect to your computer on the Internet.

3 Set options to determine how to publish your Internet address:

- To publish the address yourself, without a confirmation dialog box, clear this box: When Manually Publishing My Address, Show Confirmation.

- To have LapLink publish your address for you, check this box: Automatically Publish My Address When I'm Connected.

4 Set the Internet directory to publish your computer's address like this: Use a LapLink Directory Server: ils.laplink.com

5 Click OK.

TIP   In addition to publishing a computer's Internet address, you must also change its security setup before other computers can connect over the Internet. For more information, see "Protecting your security settings with a password.

Publishing your Internet address

You can set up LapLink to publish your address automatically whenever you run LapLink on the Internet (step 3, above). Or you can publish it yourself.

To publish your Internet address yourself:

1 Connect to the Internet as usual.

2 On the Connect menu, click Publish My Internet Address.

Making an Internet connection to a computer behind a firewall

In most cases, a firewall or router will block inbound connections from the internet, including LapLink connections[1]. Since configuration of the firewall is not easy, or even permitted by the network, LapLink Gold offers a built-in solution: You can use LapLink Gold Corporate's Firewall Connection Service to make the connection.

When the guest computer (outside the firewall) requests a connection, the host computer (inside the firewall) uses the Address Book entry to initiate the connection.

The Log-in name and password in the Log-in List entry must match the log-in name and password in the Address Book entry.

Add Address Book Entry

General | Connection | Services

Fill in the information for the computer you are setting up.
Note: You must fill in the connection information in the connection tab to continue.

Information

Description: Jake's machine

Computer Name: mk-223

Company Name: Newsoft

Job Title:

Notes:

Security information to send

Log-in Name: Jake Davis

Password: *****

Add to favorites   OK   Cancel   Help

Log-in List Privileges

General | Folder Security | Modem Callback

Specify the allowed user privileges.

User information

Log-in Name: Jake Davis

Password: *****

Services

☑ File Transfer   ☑ Remote Control   ☐ Print Redirection
☐ Text Chat   ☐ Voice Chat   ☑ Firewall

Locking

☐ Blank Screen   ☐ Disable Mouse   ☐ Disable Keyboard

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1   For more information on the ports that LapLink uses, and for up-to-date instructions on configuring firewalls, visit www.laplink.com/support.
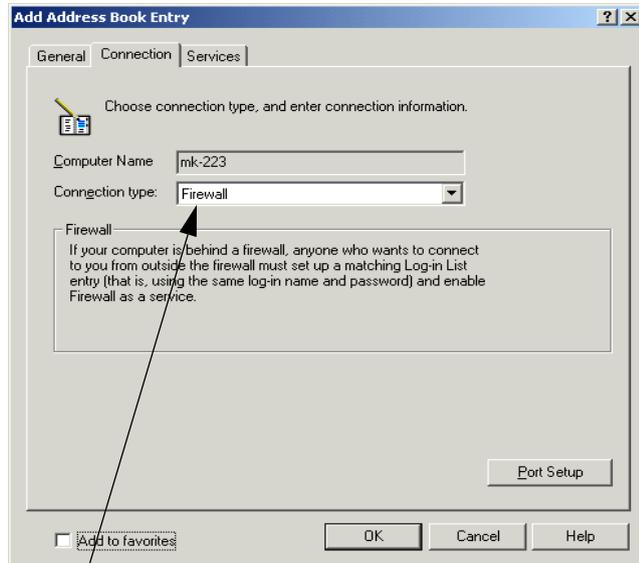
To enable a firewall connection, choose the Connection tab in the Address Book Entry, and under Connection Type, choose Firewall.

NOTE When the Connection Type is Firewall, no services need to be selected, and are greyed out on the Services tab.

You must configure both computers before you can make a firewall connection. First, configure the host computer (inside the firewall) to accept incoming connections using either a Log-in List or configuring a Public System (Log-in List is more secure) and then create an Address Book entry.

You must also create a Log-in list entry on the computer outside the firewall. This entry must match the Address Book entry you created on the computer inside the firewall.

NOTE A detailed tutorial is available by clicking on the Help menu, and choosing "Tutorials on the Web."

Before you connect to a computer behind a firewall:

• Both computers must be connected to the Internet.

• Only one of the two computers can be behind a firewall.

• The computer inside the firewall must publish its Internet address through the LapLink Internet directory server. See "Making an Internet connection to a computer behind a firewall.

• The computer inside the firewall must have an Address Book entry that includes the unique computer name, user name, and password for the computer outside the firewall to use.

• The computer outside the firewall must be configured to allow incoming connections. See "Making an Internet connection to a computer behind a firewall.

• The TCP/IP ports must be enabled in LapLink on both computers. See "Checklist for Internet connections.

• LapLink must be running on both computers.

Connecting to a computer behind a firewall:

1 Connect to the Internet as usual.

2 Click the Connect menu above the LinkBar, and then click Connect Over ILS.

3 If you have created an Address Book entry for the connection you want to open, click the connection in the Connections list.

   Otherwise, click Manual Connect. Type the Internet address, log-in name, and password for the computer behind the firewall.

NOTE You can get this information from the owner of the computer behind the firewall.

4   Under Services, check the services you want to use.   5   Click OK.

Connecting Over the Internet Using Laplink Everywhere

LapLink Everywhere offers the easiest and most flexible Internet connections. They are the easiest because they maintain security without the need to wrestle with firewalls. They are the most flexible because you can connect not just in the traditional LapLink-to-Laplink way but from any device with which you can browse the Internet, including cell phones, PDAs, and public access computers like those found in libraries and Internet cafés..

You can use LapLink Everywhere connections for traditional LapLink-to-LapLink connections.

Or you can connect from any Internet browser, without using LapLink at all..

LapLink Everywhere and LapLink Gold are two programs that have been designed to work separately or together. Unlike LapLink Gold, LapLink Everywhere needs to be installed only on the host computer-the home or office computer you want to connect to. It does not have to bein-stalled on the guest computer.

LapLink Everywhere is an optional subscription service. For more information on LapLink Everywhere features and pric-ing, visit www.laplink.com.

Once the LapLink Everywhere program is installed on the host computer, you can connect to it in two ways:

You can use LapLink Everywhere connections for traditional LapLink-to-LapLink connections.

•• Open a LapLink connection from a guest computer running LapLink Gold. LapLink Gold must be running on both computers, but LapLink Everywhere needs to be installed and running only on the host.

Or you can connect from any Internet browser, without using LapLink at all.

•• Open a LapLink Everywhere connection from a web browser, anywhere there is a connection to the internet. Simply leave LapLink Everywhere running on the host computer. You do not have to run LapLink at all on the guest computer.

For maximum flexibility, leave both LapLink Gold and LapLink Everywhere running on the host computer. You can then connect from another computer running LapLink Gold and from any device that allows you to browse the Internet.

Only LapLink-to-LapLink connections offer the complete range of LapLink features. When you use an Internet browser, you can read e-mail, transfer files, and perform remote control, but advanced features like automatic synchronization are not available.

Preparing to use LapLink Everywhere

As part of the installation of LapLink Gold you are asked whether you want to begin your free trial of the LapLink Everywhere service by setting up your LapLink Everywhere account and installing LapLink Everywhere. Simply create a unique user name and password. If you install LapLink Everywhere on more than one computer, be sure to use the same user name and password for each one.

If you originally chose not to "Learn more about LapLink Everywhere" after the installation of LapLink Gold Corporate, you may still do so at any time by visiting www.laplink.com, and there begin your free trial.

As with other kinds of connections, you must configure the security setup of the host computer to allow incoming connections. See Setting up security for incoming connections .

If you intend to connect to the host computer from an Internet browser for remote control, you must also install LapLink Secure VNC on the host computer.

NOTE LapLink Secure VNC is an additional service to LapLink Everywhere, with an additional subscription fee.

Connecting from another LapLink computer over LapLink Everywhere

To connect over LapLink Everywhere to another computer running LapLink Gold:

1 Click the Connect Over button on the Linkbar and then click Connect over LapLink Everywhere (Internet)

2 Type the user name and password set up for your LapLink Everywhere account.

3 All LapLink Everywhere hosts associated with that account will appear in a list, showing their current availability.

4 Choose the correct host computer, and click OK..

5 Depending on the security settings on the host, you may be asked for the LapLink Gold username and password. Supply whatever is required by the LapLink Gold security setup on the host computer. See "Allowing incoming connections.

Connecting from any Internet browser

You can connect to the host computer from almost any device equipped to browse the Internet-from another PC or a Mac to a PDA or an Internet telephone. The chief requirement is that the device must be set up to allow cookies.

To connect to LapLink Everywhere from an Internet-browser:

1 Log on to www.MyLapLink.com.

2 Type the user name and password set up for your LapLink Everywhere account.

3 Click the Login button.

4 LapLink Everywhere features are not the same oas those offered by LapLink Gold Corporate. For more information, visit www.laplink.com.

NOTE Some features require JAVA and Active X controls. Not all web-enabled devices support this technology.

Using an Address Book entry to connect over LapLink Everywhere.

It's a good idea to create an Address Book entry, especially if you plan to use the connection more than once. LapLink Gold allows you to connect directly from the Address Book, which makes it even easier.

To create an entry in the Address Book for Connecting Using LapLink Everywhere.

1 Click the Address Book button on the LinkBar, then click the Add button.

2 In the Description box, type a brief description of the remote computer as a reference.

3 In the Computer Name box, type the exact name assigned to the remote computer in LapLink. Remember this field is case-sensitive.

4 Click the Connection tab. In the Connection Type list, choose LapLink Everywhere.

5 Enter your LapLink Everywhere User Name, Password, and Computer Name in the appropriate fields. Note that the computer name is case-sensitive.I

To get your LapLink Everywhere Computer Name, go to www.mylaplink.com, and login in using your LapLink Everywhere User Name and Password.

The PC Name listed should be entered in the Computer Name field on the Connection tab, and should match this name exactly. Please note that this field is case-sensitive!

Click the Services tab. Choose the services you want to enable when you connect to this computer.

6 Click OK to save this Address Book entry.

Click the Connect button to connect to this computer directly from the Address Book

Connecting directly by modem

Using modems and a phone line, you can connect to another computer or to an office network. For a direct, LapLink to LapLink connection, dial to a modem on another computer using Connect over Modem.
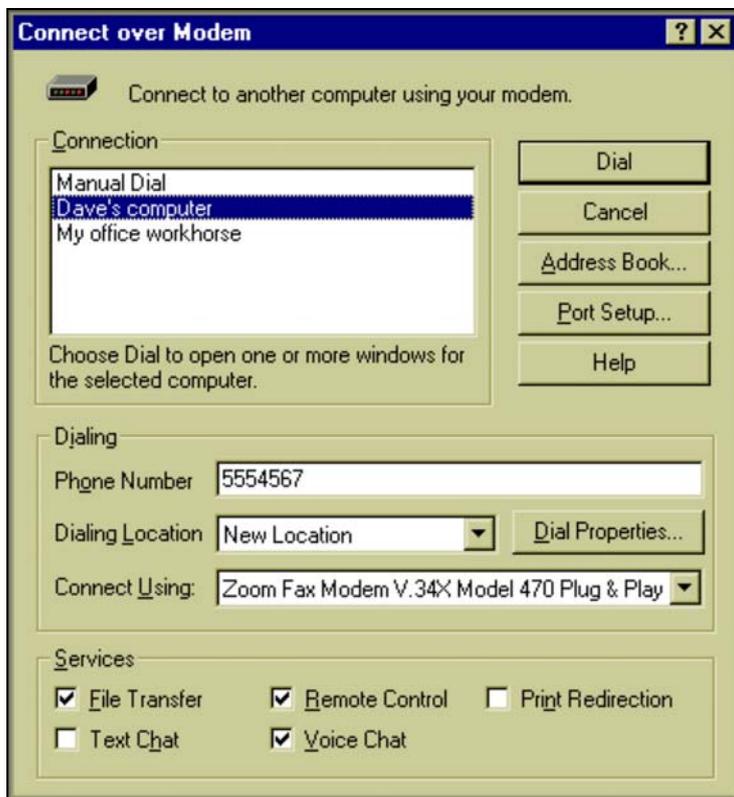
Use Connect over Modem to dial a modem on another computer and open a LapLink connection to that computer.

Entries you have created for modem connections in the Address Book appear in the connection list to make connecting easier.

TIP   For Best Results: Use only hardware-based modems, such as external (serial) modems. Most internal modems are unreliable for LapLink connections. For the latest information, visit www.laplink.com/support.

When you dial directly to another LapLink computer, and open a remote control session, you have access to all the programs and files available to that computer (including any network resources if the computer is logged on to a network).

Before Connecting over a modem

• The LapLink security setup of the computer you are connecting to must be changed to allow incoming connections. See"Allowing incoming connections .

- LapLink must be running on both computers.
- Modem ports must be enabled in LapLink on both computers.

To connect to another computer by modem:

1 Click the Connect button on the LinkBar, and then click Modem.

2 In the Connections list, click the connection you want to open.

   The connections listed under Manual Dial are your Address Book entries for modem connections. To create a new entry, click Address Book.

3 In the Dialing Location list, click the location you're dialing from.

4 Under Services, check services you want to use.

5 Click the Dial button.

Dialing manually

You can type the phone number without creating an Address Book entry beforehand. LapLink dials the number exactly as you type it, regardless of how you have set up Dialing Properties in other address book entries.

To dial manually:

1 Click the Connect button on the LinkBar, and then click Modem.

2 Click Manual Dial.

3 In the Telephone Number box, type the number EXACTLY as it is to be dialed, including numbers dialed to get an outside line, area codes, country codes, and a "1" when dialing long distance.

4 Click the Dial button.

Using an Address Book entry to connect over modem

It's a good idea to create an Address Book entry, especially if you plan to use the connection more than once. LapLink Gold allows you to connect directly from the Address Book, which makes it even easier.

To create an entry in the Address Book for Connecting over a modem.

1 Click the Address Book button on the LinkBar, then click the Add button.

2 In the Description box, type a brief description of the remote computer as a reference.

3 In the Computer Name box, type the exact name assigned to the remote computer in LapLink. Remember this field is case-sensitive.

4 Click the Connection tab. In the Connection Type list, choose Modem.

5 In the Phone Number box, type the number to dial, using any standard modem dial string (e.g.: a comma is treated as a pause).

6 If you need to use area codes or country codes, make sure to check the Use country code and area code checkbox.

7 Click the Services tab. Choose the services you want to enable when you connect to this computer.

8 Click OK to save this Address Book entry.

NOTE Click the Connect button to connect to this computer directly from the Address Book.

Dialing in to a network through a network server: Dial-Up Networking

Use Dial-Up Networking to dial in to a dial-up server (RAS) and log on to a network from outside the office. Then connect to other LapLink computers on the network and use network resources as if you were still in the office.
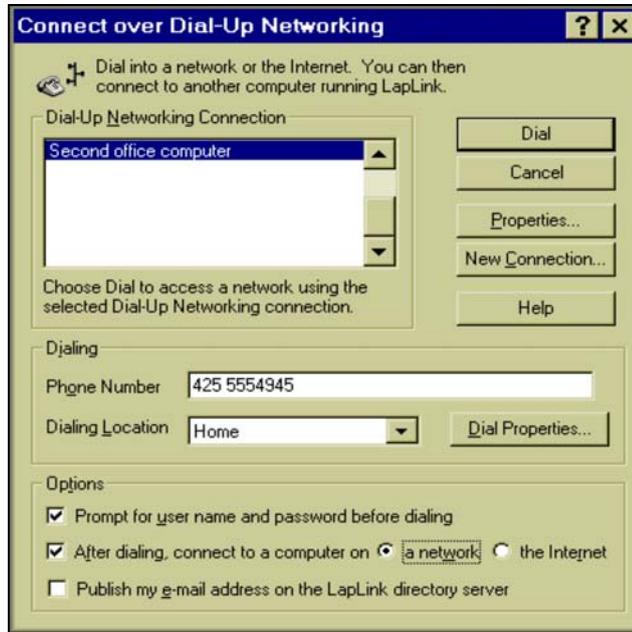
Use Dial-Up Networking to dial in to a dial-up server and connect to a network. Then open connections to other LapLink computers on the network.

Use Dial-Up Networking to access a network remotely. By dialing in to a dial-up server (RAS) on the network, you can connect to any computer running LapLink on that network.

You can also connect to LapLink computers on the Internet and browse the Internet using the Internet connection in the office. In short, you can access the same network resources you use in the office.

Before you use Dial-Up Networking

- Dial-Up Networking, a Windows feature, must be installed on the the guest computer. See Windows help for instructions.

- Your network must have a dedicated dial-up server (such as Novell NetWare Connect, Windows Remote Access Server, or Shiva NetModem). The computer

you connect to must be connected to an IPX or TCP/IP network.

- The LapLink Gold security setup on the host computer must be configured to allow incoming connections. For more information, See "Allowing incoming connections" on page 64.
- LapLink must be running on both computers.
- TCP/IP or IPX ports must be enabled.

Setting up a Dial-Up Networking connection

Before using Dial-Up Networking, create a Dial-Up Networking connection to the network server by supplying the number to dial.

To create a Dial-Up Networking connection:

1 Click the Connect Over button on the LinkBar and then click Dial-Up Networking.

2 Click the New Connection button and follow the instructions on your screen. This launches Windows "Make A New Connection wizard. Alternatively, LapLink Gold Corporate can use any existing dial-up connection available to Windows.

Connecting to a network computer using Dial-Up Networking

To use Dial-Up Networking to connect to a network computer:

1 Click the Connect Over button on the LinkBar and then click Dial-Up Networking.

2 In the list of connections, click the connection to your RAS server.

3 Ensure that this box is checked: After Dialing, Connect to a Computer on a Network.

4 Click the Dial button.

5 When prompted, type the user name and password required by the dial-up server. If your user name or password fail, contact your network administrator for assistance with logging on to the RAS server.

6 In the Connect Over LAN (Network) dialog box, click the name of the computer you want to connect to.

 If the computer is not listed and you are attempting to connect over a TCP/IP network, click the TCP/IP Addresses tab. Then do either of the following:

  •In the Connections list, click the name of the computer you want to connect to.

  •Under TCP/IP Name or Address, type the IP address of the computer.

7 Under Services, verify that the services you want to use are checked.

8 Click OK.

Connecting by wireless

To connect to another computer using wireless devices, simply start LapLink, and the connection opens automatically..
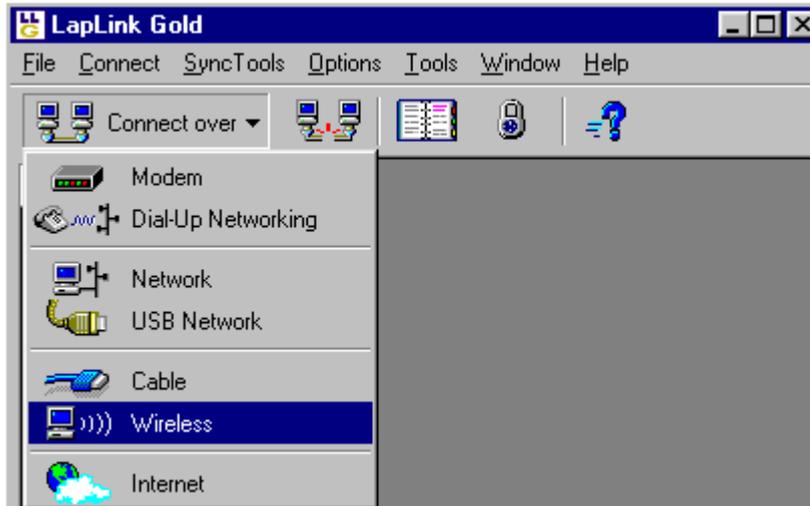
Connect over Wireless works automatically, connecting two Win95,98 or WinME computers when their infrared or other wireless devices are within range of each other.

Using LapLink, you can open short-range connections between computers equipped with infrared (IrDA) ports.[1]

You can also connect using other wireless devices: With a cellular modem, use Connect over Modem. With a wireless LAN adapter, use Connect Over LAN (Network).

---

1 Wireless connections are not available in Windows NT or Windows 2000, XP or 2003.

Before you connect by wireless

- Prepare your infrared or other wireless devices to communicate with each other. (e.g.:move within range).
- Ensure that the wireless port on each computer is enabled in LapLink. See "Checklist for wireless connections.
- Run LapLink on both computers.

Connecting to another computer by wireless

When you start LapLink on both computers, a connection opens automatically over their wireless devices. Autoconnect, the default setting for wireless connections, forces the computers to connect to each other. If you change this setting, you can connect to the other computer manually.

TIP   If the connection does not open automatically, click Port Setup on the Options menu and verify that the appropriate COM port is enabled for wireless communications.

To manually connect to another computer by wireless:

1 Click the Connect Over button on the LinkBar and then click Wireless.

2 In the Connection list, click the name of the computer you want to connect to.

3 Under Services, check the services you want to use, such as File Transfer and Remote Control.

4 Click OK.

TIP   To turn Autoconnect off, select the Options menu, and click Connect Options. On the Connect tab, clear the Enable Autoconnect box.

TIP

Using infrared devices

The infrared devices you use in LapLink must first be set up in Windows. The Windows infrared driver supports a variety of built-in devices, including fast infrared devices, as well as adapters connected to serial ports. If the driver is not installed on your computer, you can download it from the Microsoft site on the Internet.

TIP   When you install the infrared driver, specify any COM port from COM1 to COM9 as the redirected port. In LapLink, click Port Setup (Options menu) and enable the same redirected port for wireless communications.

Connecting over CAPI 2.0/ISDN

If CAPI 2.0/ISDN lines are available to your computer and the computer you are connecting to—and if both computers are set up for CAPI 2.0/ISDN communications—you can open a high-speed connection and use Remote Control, File Transfer, and other LapLink services. To connect, click the Connect Over button on the LinkBar, and then click CAPI 2.0/ISDN.

Use Connect over CAPI 2.0/ISDN to link computers wherever the CAPI 2.0 version of ISDN is available.

Entries you have created for CAPI 2.0/ISDN connections in the Address Book appear in the connection list to make connecting easier.

NOTE Both modems must be ISDN modems. DIgital modems cannot communicate directly with analog modems.
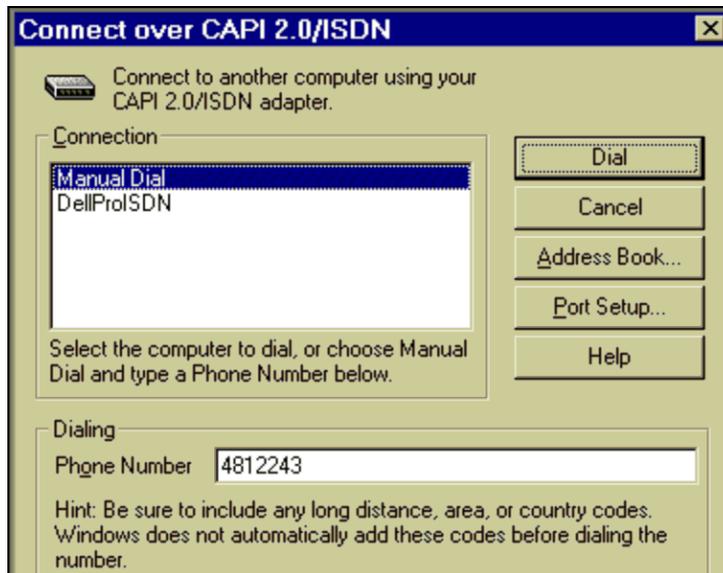
CAPI 2.0/ISDN is an implementation of ISDN, an international communications standard for sending voice, video, and data over digital telephone lines, at faster rates than those possible using modems.

NOTE LapLink does not offer CAPI 2.0/ISDN as a means of connecting unless CAPI 2.0/ISDN is installed on your computer.

CAPI 2.0/ISDN is widely used in Europe, particularly in Germany. In North America ISDN seldom is implemented as CAPI 2.0, but you can still use your ISDN device for high-speed LapLink connections. If you use your ISDN device as a modem, use Connect over Modem in LapLink. If you use it to dial in to, and log on to, a network, use Connect Over LAN (Network) in LapLink.

Before using Connect over CAPI 2.0/ISDN

- A CAPI 2.0/ISDN adapter and driver must be installed on both computers.

- Both computers must be running a version of LapLink that supports CAPI 2.0/ISDN.

- The security setup of the remote computer (the one you are connecting to) must be configured to allow incoming connections. See "Allowing incoming connections.

- CAPI 2.0/ISDN ports must be enabled in LapLink on both computers.

- LapLink must be running on both computers.

Connecting to a computer over CAPI 2.0/ISDN

To connect to a computer over CAPI 2.0/ISDN:

1 Click the Connect Over button on the LinkBar, and then click CAPI 2.0/ISDN.

2 Click the name of the computer you want to connect to in the Connection list or type a phone number under Dialing.

   The connections listed under Manual Dial are your Address Book entries for CAPI connections. To create a new entry, click Address Book.

3 Under Services, check the services you want, such as File Transfer and Remote Control.

4 Click the Dial button.

Changing CAPI 2.0/ISDN performance in LapLink

Before using CAPI 2.0/ISDN in LapLink, you may want to customize the way that LapLink responds to CAPI 2.0/ISDN calls and uses the two channels available for LapLink communications. For example, you can specify that LapLink not respond to any incoming calls to a particular channel, or you can double the rate at which data is transmitted over your CAPI 2.0/ISDN connections.

In Port Setup, you can modify the way LapLink implements CAPI 2.0/ISDN connections.

Port Setup

Set up the ports you wish to use with LapLink.

Port Settings

Ports	Type	LapLink port
Windows	Modems	Enabled
IPX	Network	Enabled
TCP/IP	Network	Enabled
CAPI	ISDN	Enabled
COM1	Cable	Disabled
COM2	Cable	Disabled

Type: ISDN

Current Port Status

CAPI (ISDN) - Enabled, Auto answer on
Channel Bonding Disabled
No active connections.

CAPI 2.0/ISDN Configuration

Change the options for your CAPI 2.0/ISDN adapter.

Auto Answer
☑ Enable

Accept calls only on the following numbers:

Hint: Leave this blank if you want LapLink to answer all incoming ISDN connections. If filled in, LapLink only answers the listed numbers. Separate multiple phone numbers with a semicolon (;).

Channel Bonding
☐ Enable

Timeouts

Callback Timeout: 60   Redial Attempts: 99
Callback Delay: 10   Redial Delay: 30

OK
Cancel
Defaults
Help

To change CAPI 2.0/ISDN performance in LapLink:

1 On the Options menu, click Port Setup.

2 Under Port Settings, click CAPI.

3 Click the Configure button.

4 If you do not want LapLink to answer any incoming CAPI 2.0/ISDN calls, clear the Enable box under Auto Answer.

To answer calls to only one number, type the number in this box: Accept Calls Only on the Following Numbers.

5 If you want to combine the two CAPI 2.0/ISDN channels for faster connections, check the Enable box under Channel Bonding.

Be sure that channel bonding is also enabled on the computer you will connect to.

6 Customize the Timeout options as necessary.

The Callback Timeout, Callback Delay, and Redial Delay settings are specified in seconds.

7 Click OK.

Answering calls

By default, LapLink is set up to answer all incoming CAPI 2.0/ISDN calls on both channels. You can modify this so that it does not answer any of these calls or it answers calls to just one of the channels.

TIP   If you don't want LapLink to answer any incoming calls, clear the Enable box under Auto Answer; then make sure that the Accept Calls Only on the Following Numbers box is blank.

TIP   When typing the number to accept calls to, use only numerals; avoid characters like dashes, parentheses, slants, and periods. When typing more than one number, use a semicolon to separate them.

Channel bonding

CAPI 2.0/ISDN provides two channels that can be used for LapLink communications. Each channel has a transmission speed of 64 Kbps. By combining ("bonding") these channels, the transmission rate can double to 128 Kbps.

By default, LapLink does not use channel bonding, even when both channels are available. This setting keeps transmission costs to a minimum for users who pay additional fees for each channel connection.

For faster transmissions, enable channel bonding. When both channels are available, LapLink can then transmit at speeds up to 128 Kbps.

TIP   Be sure to enable channel bonding on both computers. LapLink may not be able to make a connection between them otherwise.

TIP   When one channel is already in use, LapLink uses the available channel to transmit at 64 Kbps, even when channel bonding is enabled.

Connecting automatically

Once you have established a connection, you can save it for easy restoration later. You can restore a saved connection by double-clicking a shortcut icon, setting up LapLink to restore the connection automatically when you start LapLink, or restoring the connection while running LapLink. When LapLink restores a connection, it connects to the same computer or computers and opens the same services.

You can restore a saved connection three ways:

- Double-click its desktop icon.
- Set up LapLink to restore the connection automatically, whenever you run LapLink.
- Restore the connection yourself, while using LapLink.

Instead of spending time connecting to the same computer and opening the same services time after time, you can save the connection and use the saved connection as a convenient way to reconnect later.

NOTE To connect to several computers at once, open connections to each of those computers before saving connections.

When you save a connection, you record such details as the number and types of connections (modem, network, Internet, cable), the names of computers, the user name and password if necessary, and the kinds of services in use. Each connection is saved as a file. Opening the file reopens the connections and services and arranges windows to appear much as they did before.

Saving a connection

To save a connection:

1 Open one or more connections as usual.

2 On the Connect menu, click Save Connections.

3 In the File Name box, type a name to identify the connection file.

4 Click Save.

5 When asked whether you want a shortcut icon for this connection on your Windows desktop, click Yes or No.

Restoring a saved connection

Once you have saved a connection, you can restore it three ways:

• If you created a shortcut icon on your Windows desktop, double-click the icon.

• Set up LapLink to restore the connection when you run LapLink again.

• Open the connection file while running LapLink.

NOTE To completely automate the connection process, create entries in the Address Book for saved connections. Include the log-in name and password required to open each connection.

To set up LapLink to restore a saved connection when you start the program:

1 On the Options menu, click Connect Options.

2 On the Startup tab, check this box: Restore Saved Connections at Startup.

3 Click the name of the connection file you want to open, or type it in the Connection File box.

If the file does not appear in the list of files, click the Browse button and locate the drive and folder containing the file.

TIP Connection files have the .LLC extension. In Windows 95 and Windows 98, as well as Windows ME, they are stored in the My Documents folder. In Windows NT, they are stored in the \Profiles*yourname*\Personal folder within the Windows folder (where *yourname* is your Windows NT logon name).

TIP In WIndows 2000, XP and 2003, they are stored in C:\Documents and Settings*username*\My Documents.

4 If you want the connection restored without confirmation, click Automatically Connect at Startup. Otherwise, click Ask Before Connecting.

5 Click OK.

To open a saved connection while running LapLink:

1 On the Connect menu, click Restore Connections.

2 Click the name of the connection file you want to open, or type it in the File Name box.

If the file does not appear in the list of files, locate the appropriate drive in the Look In box; then double-click the folder containing the file.

3 Click Open.

3 Using the Address Book

Using the Address Book

LapLink Gold Corporate's all-new Address Book offers expanded flexibility and control to users. It allows you to save connections you use frequently, create folders, organize your work, import and export connection information to and from a global database, and allows connections to users directly from the address book itself.

To use the Address Book, click on the Address Book icon on the toolbar..

The Address Book screen.
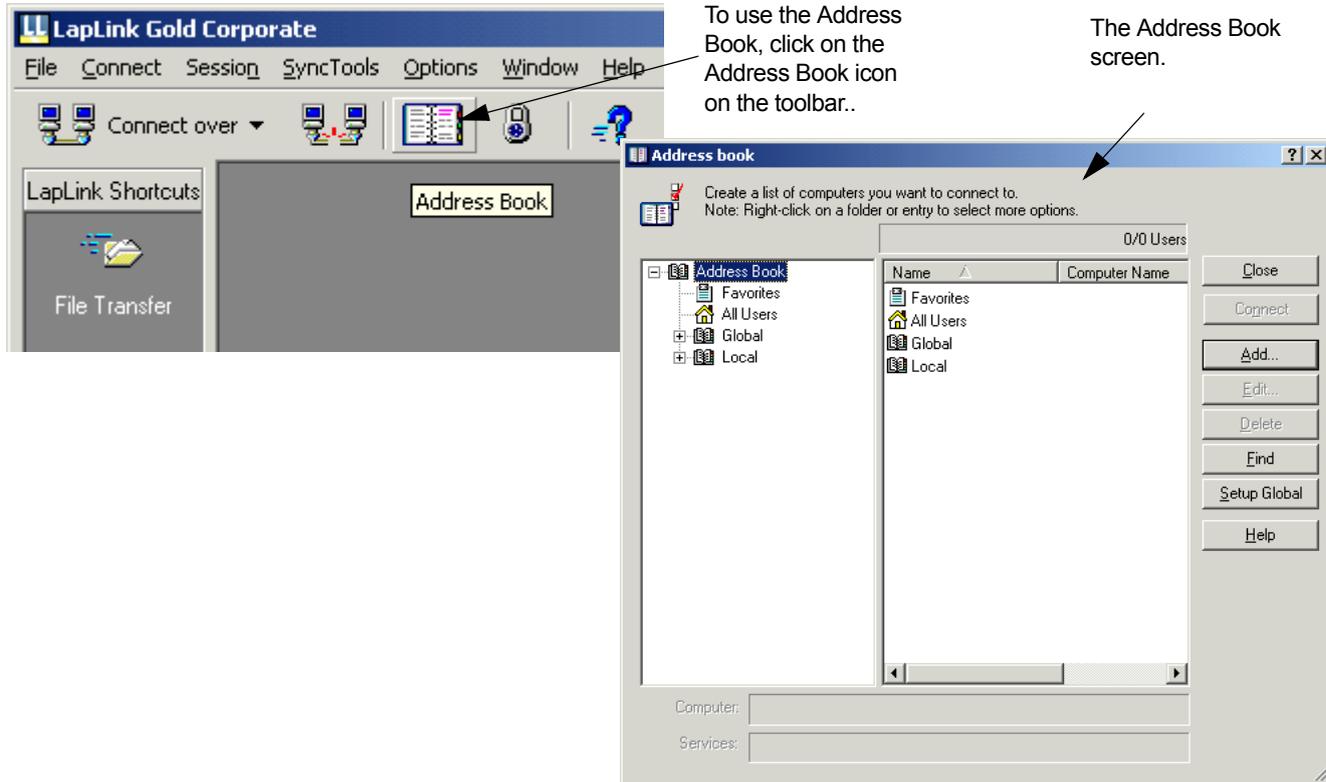
View Options and Folders

📖 The **Address Book** provides a folder structure and other options for viewing connections to computers.

📄 **Favorites-** LapLink Gold Corporate allows you to mark Laplink computers you connect to as Favorites when you create address book entries. One click on the Favorites icon on the Address Book tree will list all users you have marked as Favorites in the pane on the right. These might be frequently accessed computers, VIP's or other connections you want to keep on your Favorite list for easy access.

🏠 All Users- Selecting All Users lists all connections you have in your entire address book, including all folders and subfolders.

📖 Choosing **Global** lists the Global folders. Global folders contain connections that may be accessed by many different users in your organization. For instance, it might be useful to provide a group of connections to your entire tech support team, and another list to your IT team. Global folders can be shared among your teams using the Import/Export features, which will be discussed later in this chapter

📖 Choosing **Local** lists the Local folders on your system. Local folders are used to store connections that you wouldn't need to share with the group. Local folders are not affected by importing or exporting.

Renaming, Adding and Deleting Folders

LapLink Gold Corporate allows users to the ability to Add, Rename or Delete Address Book folders

Adding a folder

To add a folder, select where in your address book you'd like the new folder to appear. For instance, are these computer connections you'd want to share with others? If so, you might click Global, as shown below. Right-click on the location you selected to see your User and Folder options. Choose Folder.
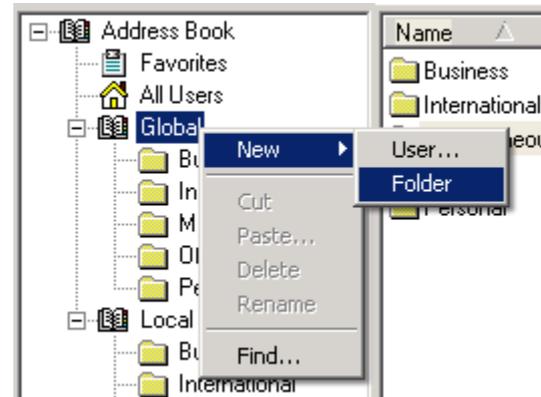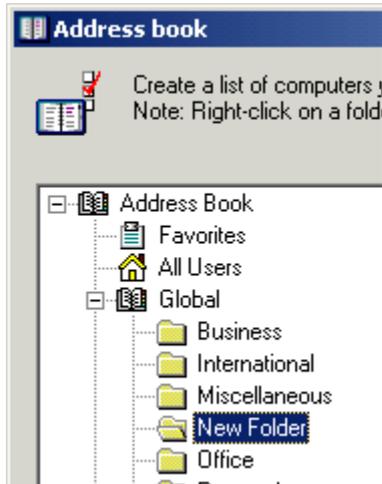
A new folder will appear under the Global list called **New Folder**, as shown left.
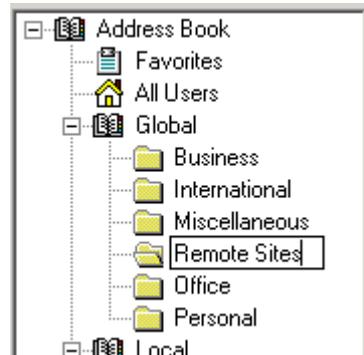
Type in the new folder name in the box. The new folder below is called **Remote Sites**. Once finished, click outside the folder name text box to finish.

Renaming a folder

To rename a folder, right-click on the folder you want, and choose Rename.
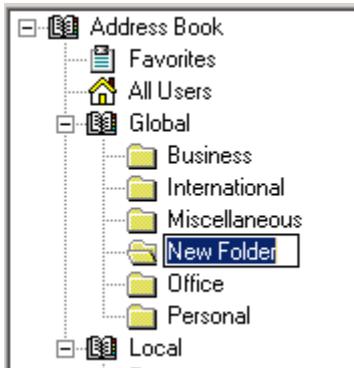
Adding a Sub-folder

It is just as easy to create a sub-folder using LapLink Gold Corporate. Simply highlight the folder in which you'd like to create a sub-folder, and right-click, then choose Folder again.
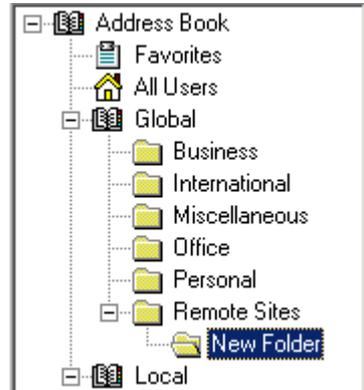
Deleting a Folder
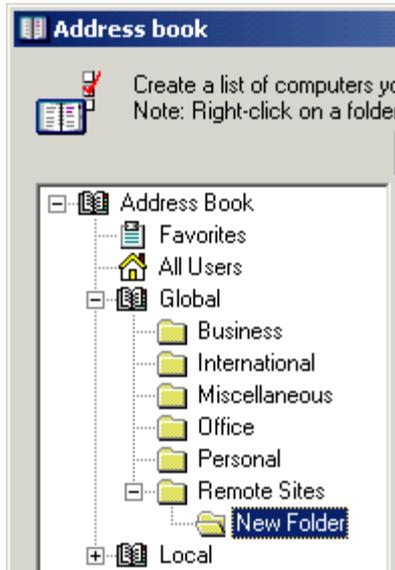
To delete a folder, highlight the folder, then right-click to view folder options. Select Delete to remove this folder.

CAUTION LapLink Gold Corporate prompts you with the confirmation screen to the right, but it is important to understand that deleting a folder will delete the

folder and all of its contents, including any entries in that folder.
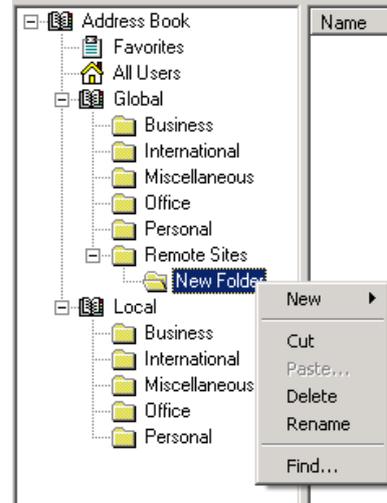
LapLink Gold Corporate also allows you to **Cut and Paste** a folder, and any connections in the selected folder. You can delete it from your Address Book in this manner, or paste it to a new location. For instance, you might have a local folder you want to share with your entire team. You could cut and paste this folder from the Local folders to your Global folders, and export it so that everyone can use the connections. Importing/Exporting, is explained in detail later in this chapter.

The Button Bar

The Address Book button bar is the control panel for much of the user function in the Address Book.

Below is a brief description of the function of each button.
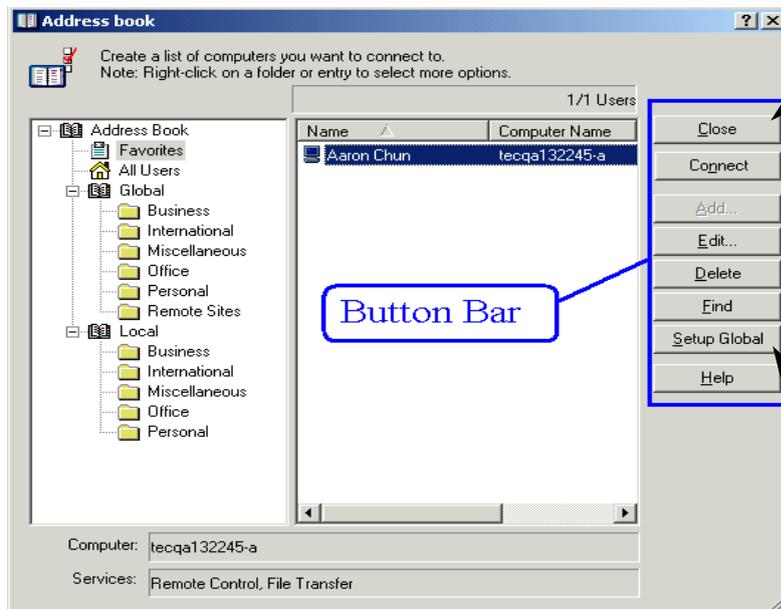
Close- Exits the user from the Address Book.

Connect- Connects you to the selected user.

Add- Brings up the Add User screen.

Edit- Allows you to edit a selected user.

Delete- Deletes the selected user.

Find- Bringsup a Search interface for finding users.

Setup Global- Allows for the importing and exporting of a global database.

Adding an Address Book Entry- General Tab

Clicking on the Add button on the Address Book toolbar brings you to the Add Address Book Entry screen, on the General tab, as seen here. The address book allows you to create and save connections, so that frequently used connections can be instantly accessed, without having to redefine the connection information each time.

Description

This describes the connection you are making. It could be at a person's desk, or represent a server to you. LapLink Gold Corporate automatically populates whatever is typed in the Description field to the Computer Name field, though it is not necessary for these fields to be identical.

Computer Name

NOTE The Computer Name information entered must match the *LapLink* name of the computer you're connect-

ing to EXACTLY, and is case-sensitive. This is not necessarily the same as the Windows computer name. To see or change the computer name on the host computer you are connecting to, go to the Options menu in LapLink on that machine, and choose 'Computer Name'.

The other fields in the top section (Company Name, Job Title, Notes) allow you to describe the connection. Sometimes a computer is a person's desktop, sometimes it is a server. These fields allow you to describe this computer connection more fully.

Security information to send

If you are connecting to a computer that requires you to log in, and use a password, enter these pieces of information here. These fields are both case-sensitive, so make sure the Log-In Name and Password match exactly. However, only the password field is case-sensitive.

Add To Favorites checkbox

Checking this box will allow this entry to be viewed when clicking Favorites on the left Address Book pane.

Connection tab

The connection tab allows you to define how you want to connect to this computer. LapLink Gold Corporate allows many connection options, and these are discussed below.

Important Requirements:

NOTE LapLink Gold Corporate must be installed and running on both machines: Please note that no connection is possible, regardless of connection method, unless LapLink Gold Corporate is running on both your computer and the computer to which you are trying to connect. Make certain LapLink Gold Corporate is set up on the host computer before attempting to create a connection.

Security Must Allow a Connection: On the Host machine, or the machine to which you are trying to connect, security must be set to allow a connection; otherwise a connection is not possible. To learn more about creating secure connections and host options, go to ”Setting up security for incoming connections.

A Port Must Be Enabled: Each connection type has different requirements for connection, and LapLink Gold Corporate requires a port to be configured for each connection type. Click the Port Setup button to configure LapLink Gold Corporate to use your different port options. To learn more about setting up ports, go to the chapter entitled”How can I connect to other computers?,

Edit Address Book Entry

General | Connection | Services

Choose connection type, and enter connection information.

Computer Name: AC12366-A

Connection type: Network:Available Now
- Network:Available Now
- Network:TCPIP Address
- Internet Address
- Modem
- Cable
- Firewall
- LapLink Everywhere

Phone Number
Area code: 425
Country Code:
☑ Use country code and area code

Modem
Connect Using:

Port Setup

☑ Add to favorites   OK   Cancel   Help

Connection Types

Laplink allows many different methods to connect to other LapLink computers. To learn more about ways to connect using LapLink Gold Corporate listed below, go to "How can I connect to other computers?

Network: Available Now

Use this connection type if the computer you are connecting to normally appears in the list of available computers when you use Connect over LAN (Network).

Network: TCPIP Address

Use this connection type if you want to connect to this computer using a TCPIP address.

Internet Address

This connection type uses the address that the host computer has published to the ILS server, such as Jane-Doe@ACME.com.

Modem

Use Modem if you use a modem on your machine to connect directly to a modem on this user's machine. Simply enter in the modem number in the Phone Number fields.

Cable

LapLink Gold Corporate accepts use of parallel, serial, or USB cable as connection types.

NOTE It is generally not necessary to create an address book entry for cable connections, as LapLink Gold Corporate asutomatically creates the connection when the cables are attached (by default).

Firewall

If the host computer is behind a firewall or router, LapLink offers an alternative to opening ports and configuring the firewall by creating a persistent connection to the LapLink server. To learn more, please go to the online tutorial http://laplink.com/tutorials/firewall.asp for detailed instruction on this connection type.

LapLink Everywhere

LapLink Everywhere is another connection type offered. To use LapLink Everywhere as a connection type, LapLink Gold Corporate must be running on both the client and host computers, and LapLink Everywhere must be installed and running on the Host computer.

LapLink Everywhere offers great flexibility by also allowing you to access other LapLink hosts via a browser.

Services tab

The Services tab is where you can define what you'll be able to do once your connection is established. You can choose as few or as many different services as you need.
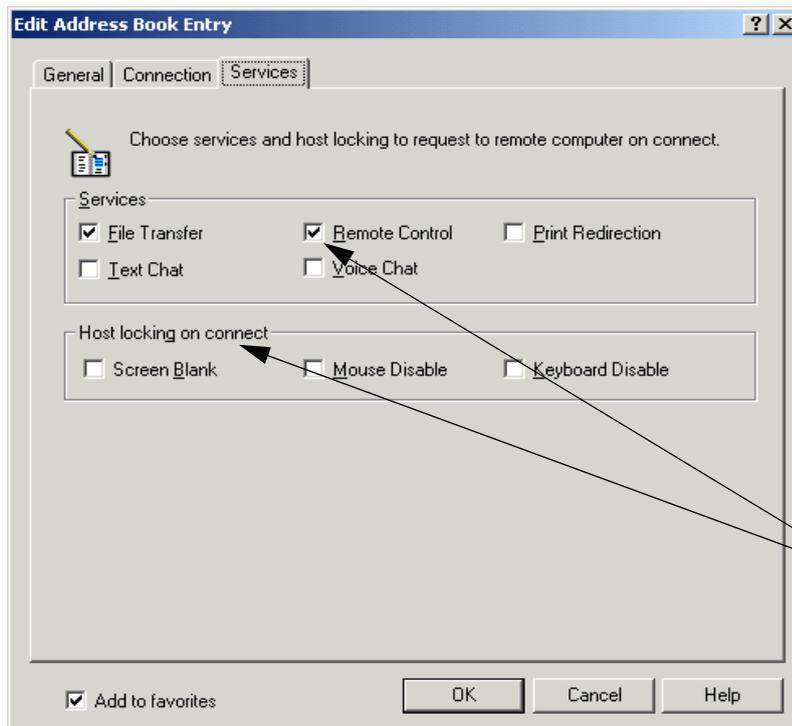
To learn more about any of these services, click on the links below:

- ”Using File Transfer
- ”Using Remote Control
- ”Using Text Chat and Voice Chat
- ”Using Print Redirection

NOTE Host Locking options are only enabled when the Remote Control service is checked.

Host Locking on Connect

From a guest computer, you can ensure privacy and prevent interruptions at the host by disabling its keyboard and mouse and blanking its screen. Enable the options you want to control once you connect by checking the appropriate checkboxes.

Once you've completed your selections on the three Address Book tabs (General, Connection and Services) click OK to save your changes.

NOTE There are four fields in each entry that must be filled in order to save an entry, and for a connection to be possible.

On the General tab

•The Description and Computer Name fields must contain characters.

On the Connection tab

•A Connection Type must be selected

On the Services tab

•At least one Service must be selected

CAUTION Once these fields contain data, the OK and Connect buttons become enabled, but this does not guarantee a connection. Make sure to use the correct computer name, and that your connection type is correct, before attempting to make a connection.

Other Toolbar Options

The toolbar has several other buttons that allow you to manage your address book in different ways.

Connect

Once you've created your Address Book entry, simply hit the Connect button to instantly connect you to this computer. This is great for computers you need to connect to frequently.

Edit

If you need to change information in a particular Address Book entry, click Edit to make changes.

Delete

If you want to delete a user or a user folder from your Address Book, choose the user or folder and select the Delete key.

CAUTION You will see the confirmation screen to the right, but it is important to remember that if you choose a folder, the folder and all users in the folder will be deleted.
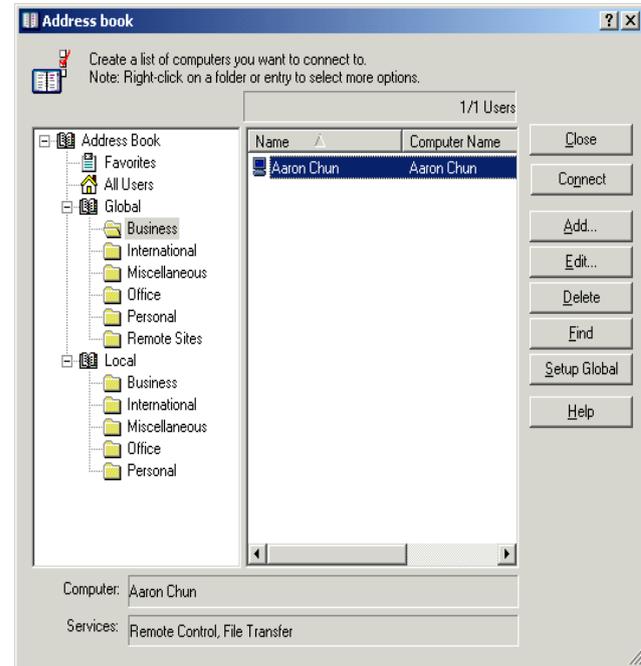
Find

Find allows you to search your Address Book for a particular user or computer on your system. Search from a particular folder, or from any of the options on the Address Book tree in the left pane. Find searches for Computer Name only.

Using Find

Choose the folder on the left pane you want to search, then click the Find button, and enter the compter name you are looking for. See below.
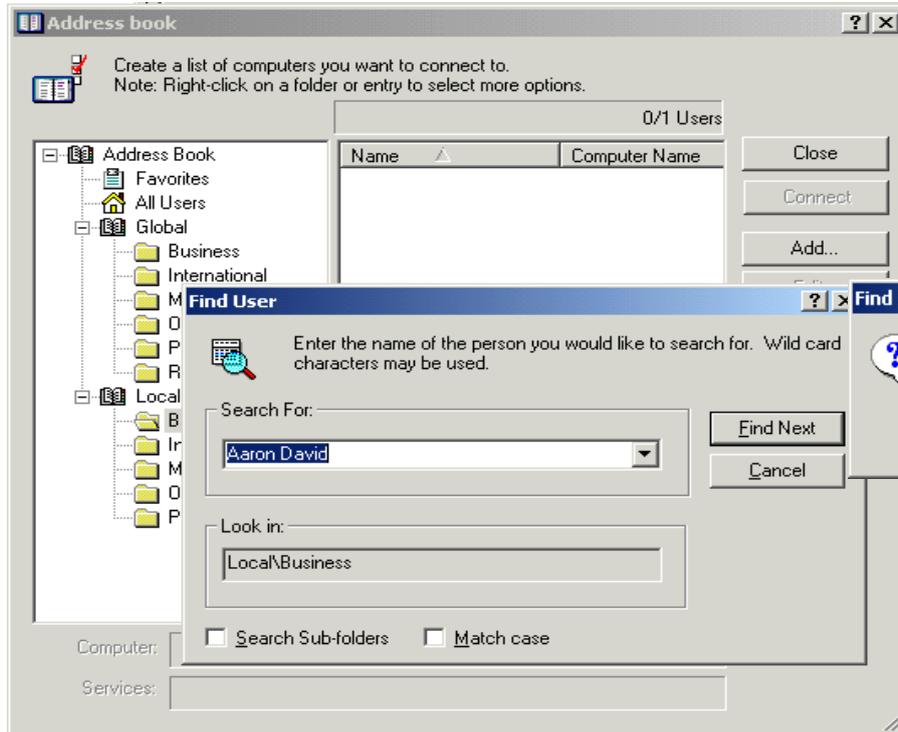
If LapLink Gold Corporate is not able to locate this computer in the selected folder, it will ask you whether you'd like to look through the rest of the Address book to find it. See Below.
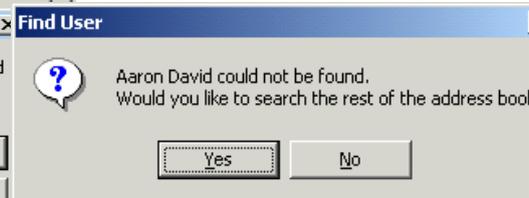
At this Point, LapLink Gold Corporate will search the rest of the Computer Names in the Address Book for the name or name segment you entered, and provide you all matches

Setup Global

LapLink Gold Corporate provides the ability to link to a SQL database through the Address Book. This allows you to create a Global Address book, and share this Address Book

with anyone in your corporation you choose, provided LapLink Gold Corporate is installed on their desktop. This makes it easy to create a single address book and easily share it with your tech support or IT teams.
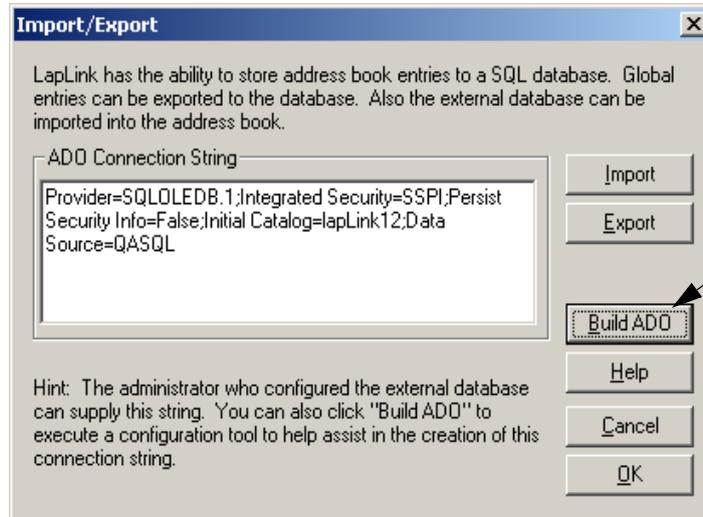
When clicking on the Setup Global button, the Import/Export screen on the left appears. LapLink Gold Corporate requires a connection to an SQL database through an ADO string. If you or your administrator know this information, you can enter it on the left, or click the Build ADO button, which will bring up the Windows Data Link Properties screen seen below.

LapLink Gold Corporate uses Microsoft's Data Link Properties utility to step you through the process of connecting to your database. If you have questions about creating this connection, consult with your company's database administrator for more information.
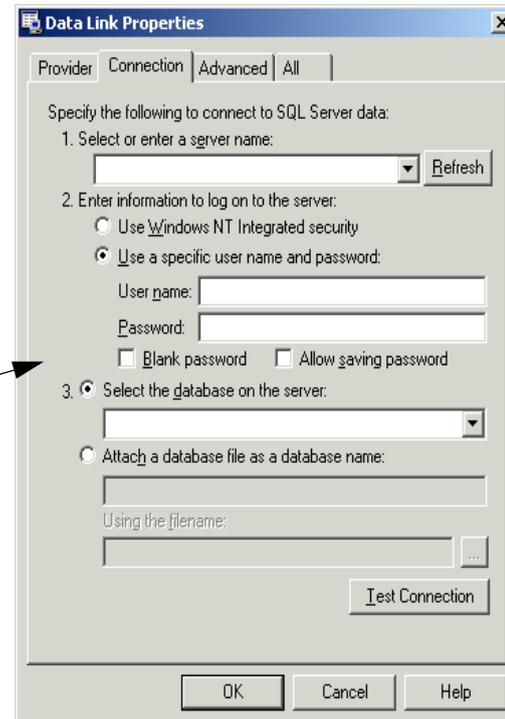
Importing and Exporting

It is important to understand how importing and exporting works in LapLink Gold Corporate's address book..

Once you've clicked the Build ADO button and established a connection to your database, your Import/Export buttons will become enabled.

Importing and Exporting **ONLY** affect the Global folders.

Connections in your Local folders are computers only you need to connect to, and can't be shared.

You can, however, cut and paste or Copy from your Local folders to your Global folders, and then share these connections using Import/Export..

Importing

Importing allows you to download a local copy of the Global Address book. As the Address Book gets updated by other users, who might add or delete users or folders, importing allows you get any new folders and users in your address book.

NOTE To import, you must have read access privileges to the database. See your database administrator for more information.

Exporting

Exporting allows you the capability of making changes to your address book, then Exporting those changes to the database. Exporting is primarily an administrative function.

NOTE If you've made changes to your Global Address list, and you want to share these changes with other LapLink Gold users, you must first use Export to send those changes back to the main database. Then, other LapLink Gold users must use Import to receive the changes.

CAUTION If you make changes to your Global address book, then Export it, those changes are permanent, both in your Address Book, and in anyone's Address Book who later imports it.

CAUTION Exporting requires write privileges. Database administrators should carefully manage which users have Address Book Exporting capabilities.

Help

Click the Help button to get information on all the different components of the Address Book.

4 Setting up security for incoming connections

Allowing incoming connections

As a safety precaution, LapLink's default security setting is "Private System". After you install LapLink, you can connect to other computers, but other computers cannot open incoming connections to yours except by cable or wireless. To allow incoming connections, you can change the security setting to "Public System". For more security, change the security setting to "Protected System" and create one or more entries in the Log-in List. In each entry, specify the password and the log-in name the user must provide to open an incoming connection, and grant the user permission to use services and other features.

Click Log-in List Only (Protected System) and then click the Log-in List button.

Create an entry in your Log-in List for the remote user.
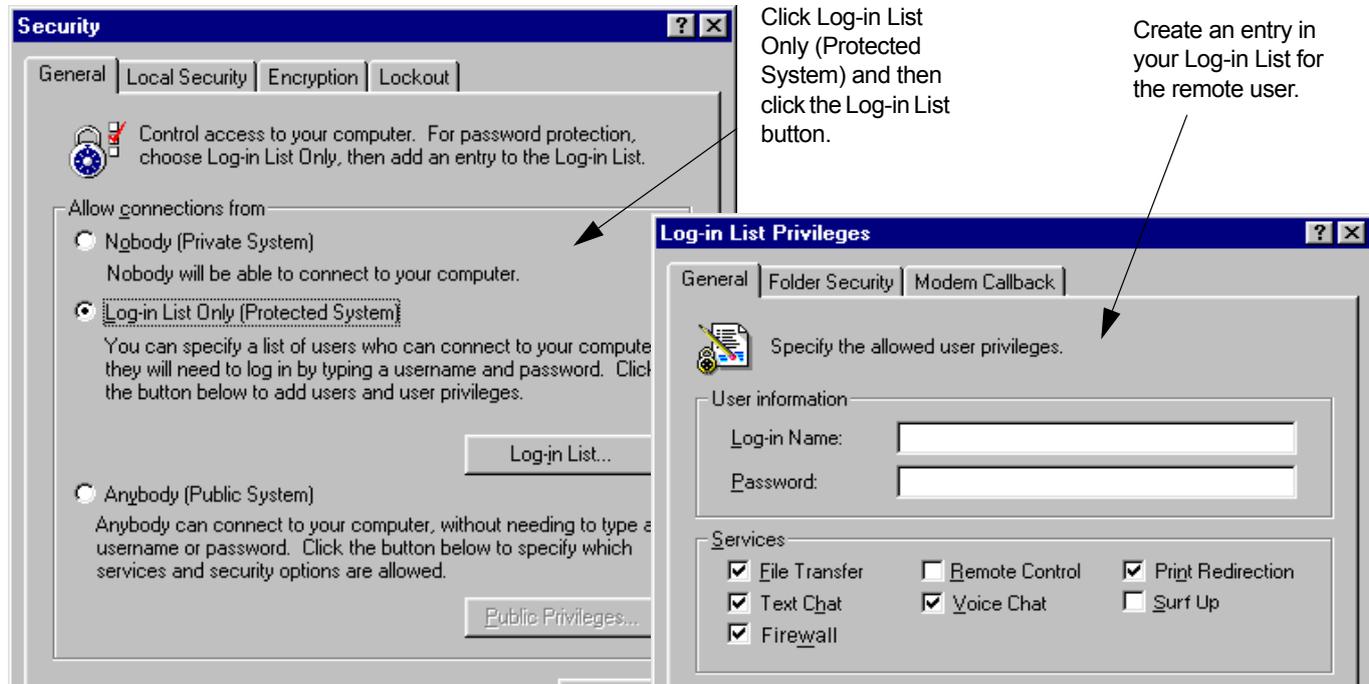
The safest way to allow incoming connections is to set up password-protection by creating entries in the Log-in List. If you will be the only person to connect to this computer, make a single Log-in List entry and grant yourself whatever privileges you want. For other users, create separate entries for each user or group of users according to privileges granted.

To set up password-protected access to your computer:

1 Click the Security button on the LinkBar.

2 On the General tab, click Log-in List Only (Protected System).

3 Click the Log-in List button, and then click the Add button.

4 On the General tab, type the log-in name and the password the user must provide to make a connection to your computer.

   Reenter the password and click OK to confirm.

5 Under Services, check File Transfer, Remote Control, or any of the other services you want to make available to that user.

6 Under Locking Permissions, check options to determine whether the user can blank the screen of your computer and disable its mouse and keyboard.

   TIP You can grant locking permissions only if you select Remote Control as an available service.

7 To deny access to particular drives and folders, click the Folder Security tab. For more information see "Denying access to certain drives and folders.

8 To specify whether or how a user opening a connection by modem is to be called back, click the Modem Callback tab. For more information, see page 70.

Specifying passwords

LapLink Gold passwords are case-sensitive (*i* and *I*, for example, are treated differently). For incoming connections from computers running LapLink Gold, you can specify more secure passwords by mixing capital letters and lower-case letters. The introduction of case sensitivity has these important consequences:

. . . Allowing incoming connections

CAUTION For incoming connections from computers running versions earlier than LapLink 2000,[1] type passwords using ALL CAPITALS. If your Log-in List has passwords for such connections, retype them as all capitals, or assign new passwords.

CAUTION If your Log-in List contains passwords assigned in an earlier LapLink version, other computers that have also upgraded may not be able to connect to your computer until you assign new passwords.

CAUTION By default, security is not imposed on incoming connections over a cable or by wireless. If you set up password protection for modem and network connections, however, you can extend that protection to cable and wireless connections as well. On the Local Security tab, check this box: Enforce Security for Local Connections.

Setting up a public system

If security is not an concern, you can open your computer to *any* LapLink users. Though you do not require that they type a password, you can limit the services, drives, and folders they can access.

To allow access to your computer *without password protection:*

1 Click the Security button on the LinkBar.

2 On the General tab, click Anybody (Public System). Then click the Public Privileges button.

3 On the General tab, check the services and locking privileges you want to grant.

4 On the Folder Security tab, deny access to drives and folders as you wish. For more information see page 66.

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1 Versions before LapLink 2000 include LapLink Pro, LapLink Tech, and LapLink 7.5 or earlier.

Denying access to certain drives and folders

When you open your computer to incoming connections, you can specify whether all drives and folders—or only certain ones—are accessible to users who connect to your computer for File Transfer. You can also grant different privileges to different users.

Folders removed from access in a Log-in List entry...

...do not appear in File Transfer windows on a remote computer.
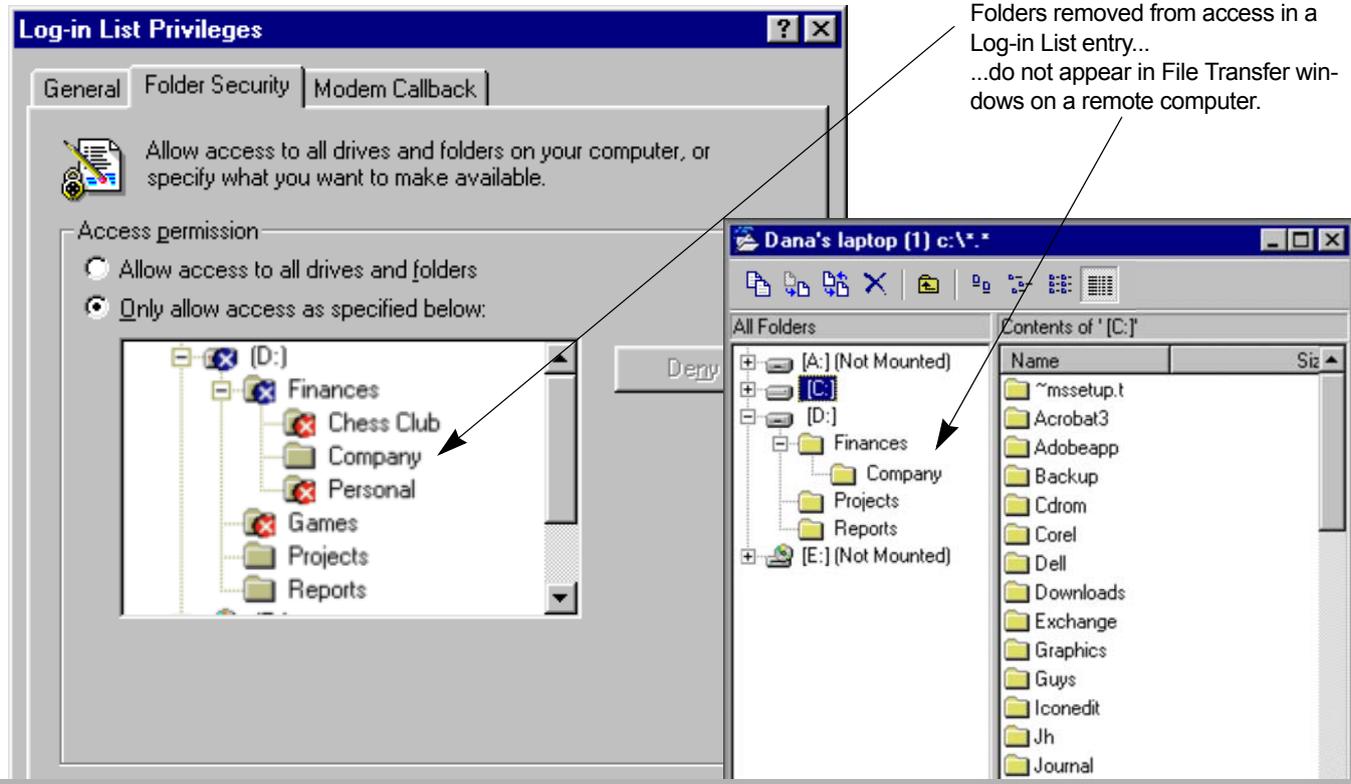
Opening your computer to incoming connections does not mean that files on all your drives and folders must be accessible to other users. You can "hide" certain drives and folders so that other users will not see them in their File Transfer windows and cannot copy files to or from them.

You can set up drive and folder security when you secure your computer using the Log-in List. Specify a different setup for each entry in the list if you like. Until you specify otherwise, every user in your Log-in List has access to all of your drives and folders.

CAUTION Denying access to a drive or folder makes it invisible to anyone who connects for File Transfer but has no effect in Remote Control. Anyone who connects for Remote Control can still access all of your files.

To limit access to certain drives and folders:

1 Click the Security button on the LinkBar.

2 Ensure that Log-in List (Protected System) is selected, and click the Log-in List button.

3 Click the Add button to create an entry in the Log-in List.

   TIP If you want to change an existing entry, highlight it in the list of current users and click the Edit button.

4 Click the Folder Security tab and then click Only Allow Access as Specified Below.

Access is now denied to all drives and folders.

5 In the list of drives and folders, highlight each one you want to make accessible and click the Allow button.

TIP You can navigate through the drives and folders on the Folder Security tab much as you do in a File Transfer window. For fastest navigation, double-click a drive or folder or click the plus sign beside it.

NOTE You can also specify drive and folder security for a computer designated as a public system (no password required). Click the Security button on the LinkBar and click the Public Privileges button. Then click the Folder Security tab.

Locking out password crackers

W hen you open your computer to incoming connections, it's a good idea to include Lockout protection so that anyone who supplies an incorrect password more than a particular number of times is denied access to your computer. You enable Lockout and set the number of allowable tries as part of Security setup.
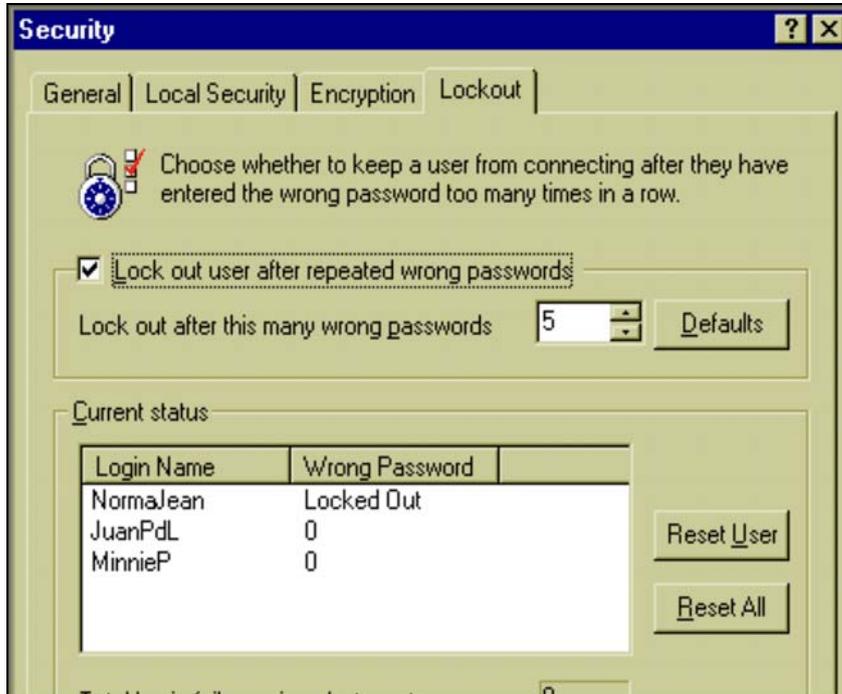
Use Lockout to protect against someone who attempts to guess your passwords.

As set up here, Lockout will take effect after five failed attempts for each log-in name.

Someone supplying the log-in name NormaJean has been locked out and won't be able to connect even if he or she supplies the correct password.

Like combination safes, security passwords can be compromised. Password crackers use a variety of techniques; some techniques are more sophisticated than others, but almost all require guessing.

To guard against unauthorized access, use Lockout to bar anyone who makes repeated attempts at guessing a password for entry to your computer.

To lock out anyone who repeatedly tries to connect using incorrect passwords:

1 Click the Security button on the LinkBar.

2 On the Lockout tab, check this box: Lock Out User after Repeated Wrong Passwords.

3 In the Lock Out After This Many Wrong Passwords box, click the number you want to allow before Lockout takes effect.

   TIP The lower the number, the less the security risk.

4 Click OK.

Monitoring failed log-in attempts

Lockout is designed to monitor and control access according to the log-in names in your Log-in List. A separate count of failed attempts is kept for each log-in name; when a count reaches your maximum (step 3 above), users can no longer connect using that log-in name.

Beside the log-in names listed on the Lockout tab appear numbers for the number of incorrect passwords. When a count reaches the maximum, the log-in name is labeled *Locked Out*.

You can reset to zero the count for any or all of the log-in names. This action also makes a locked out name usable once again.

TIP   Unless a log-in name has been labeled *Locked Out,* its count is reset to zero automatically whenever a user connects using that log-in name and the correct password. For this reason, only consecutive failed attempts are recorded permanently, not cumulative failed attempts.

To reset to zero the count for a single log-in name:

• Click the log-in name and click the Reset User button.

To reset to zero the count for all log-in names:

• Click the Reset All button.

Tips for more secure passwords

• Use at least six characters.

• Include letters (both lowercase[1] and capitals), numbers, punctuation, and symbols.

• Avoid any words found in dictionaries. (Some password-cracking programs rely on dictionaries to guess passwords.)

• Don't make your passwords so complex or long that you can't remember them.

• Change your passwords at regular intervals.

• In order to gain access to your computer in LapLink, a hacker would ALSO need LapLink installed and running on their system, and would need to locate your LapLink host, which is nearly impossible over the internet. If you are using Laplink with a firewall or router, the hacker would need to get around that security as well, before they would be able to attempt to crack passwords. All of this protection makes LapLink Gold Corporate very secure.

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1 Passwords for incoming connections from versions earlier than LapLink 2000 are the exception. They must be all capital letters.

Allowing or requiring callbacks

When you allow incoming modem connections, you can require that the guest computer be called back before a connection is opened. Or you can let the guest computer determine whether to be called back. In both cases you can supply the phone number ahead of time or leave the number to the guest computer. You set callback options in the Log-in List.

Laplink will call you back using a number you enter, or will connect without reversing the call.

LapLink will call you back at a number that has been specified, or will connect you without reversing the call.
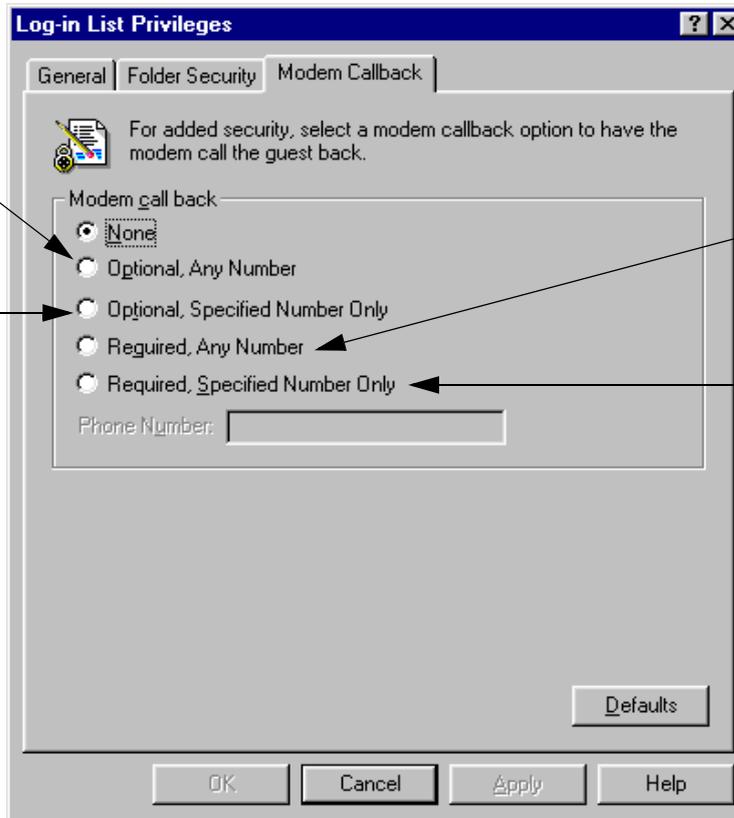
LapLink will call you back at a number you enter, or will disconnect.

LapLink will call you back at a number that has been specified, or will disconnect..

A callback occurs when the guestcomputer attempts to connect to host computer by modem; instead of completing the connection, the LapLink Gold Corporate host computer reverses the call by hanging up and then dialing to the guest computer. The connection is established when the guest computer answers.

You can use callbacks as a security measure: e.g; require a callback to a phone number you specify. Or you can use callbacks to save money, as when you are connecting to your office from a hotel room.

You can set callback options when you secure your computer using the Log-in List. Specify a different option for each entry in the list if necessary.

To set callback options:

1 Click the Security button on the LinkBar.

2 Ensure that Log-in List (Protected System) is selected and click the Log-in List button.

3 Click the Add button to create an entry in the Log-in List.

   TIP If you want to change an existing entry, highlight it in the list of current users and click the Edit button.

4 Click the Modem Callback tab.

5 Click one of these options:

   • **None**   Prevents callbacks.

   • **Optional, Any Number**   Lets the guest user decide whether to be called back; users who choose to be called back can specify the number to dial. This is the most flexible of all the options.

. . . Allowing or requiring callbacks

   • **Optional, Specified Number Only**   Lets the guest user decide whether to be called back to the number you specify or to open the connection without any callback. Only the number you specify in the Phone Number box can be dialed for the callback.

   • **Required, Any Number**   Requires guest user to be called back but allows them to specify the number to be dialed. The number can vary from session to session.

   • **Required, Specified Number Only**   Requires the guest user to be called back to the number you specify in the Phone Number box.

6 If you clicked either of the options for which you must specify a phone number, type that number in the Phone Number box.

   Type the entire number, including any prefixes or suffixes necessary to dial the remote computer from this one. (Your Dialing Properties settings do not apply here.)

TIP   Do not require callbacks from computers that connect by running Xchange Agents. The agents will not finish because they cannot perform callbacks.

Protecting your security settings with a password

Creating password protection for your LapLink security settings prevents unauthorized users from compromising your security system; it also keeps them from viewing your Address Book entries and using them to open connections to other computers. Protecting your security settings is a particularly good idea if you allow others to control your computer remotely.
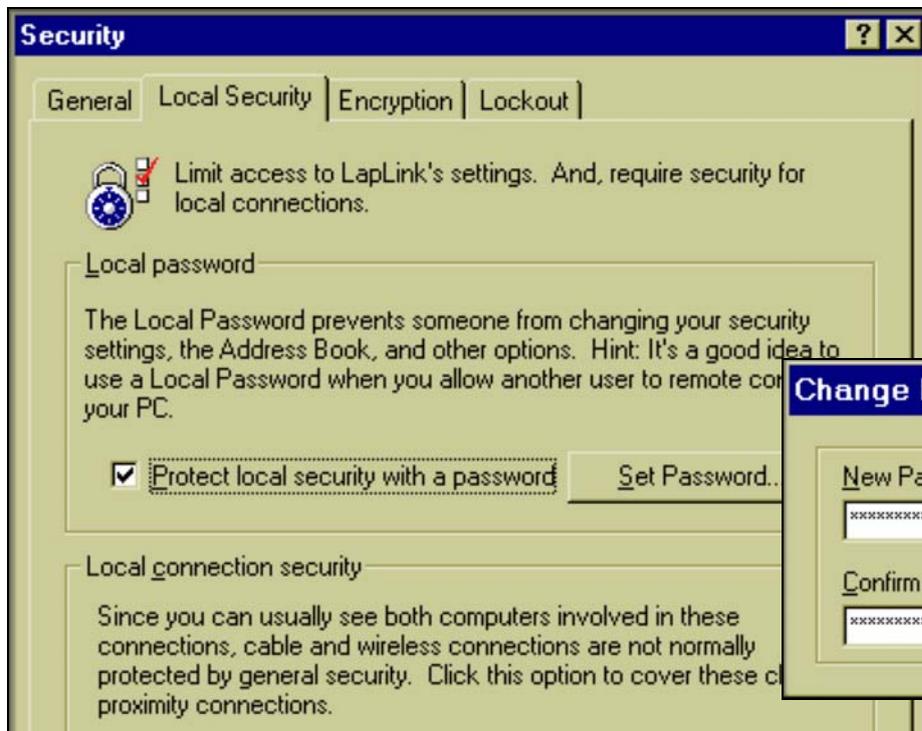
On the Local Security tab in Security, check the Protect Local Security with a Password box. Then click the Set Password button.

Setting up password protection for your LapLink security settings ensures that the protections you set up for your computer cannot be compromised—either by someone using your computer in your absence or by remote users.

Without knowledge of your password, users cannot view or change any of this information:

• Log-in names, passwords, and other security settings

• Phone numbers, passwords, and other information stored in your Address Book entries

• Privileges you have granted to guest computers and other settings in Remote Control Options

In addition, the same password is required for access to Connect over Modem and certain Logging features.

To protect your LapLink security settings:

1 Click the Security button on the LinkBar.

2 On the Local Security tab, check this box: Protect Local Security with a Password.

3 In the Change Password dialog box, type a password at least 4 characters long in the New Password box. In the Confirm New Password box, type it again.

TIP Passwords are case-sensitive: capital letters and lowercase letters are treated differently. For more secure passwords, mix the two cases.

4 Click OK.

TIP To remove password protection, clear this box: Protect Local Security with a Password. To change the password currently in effect, click the Set Password button.

Encrypting information over incoming connections

Encryption is a good idea over Internet connections and other connections where your information might be intercepted and compromised. You can use the encryption methods provided in LapLink, or use the powerful encryption options available in Windows opertating system. The settings you make on the host computer determine encryption level for incoming connections.

By default, LapLink encrypts log-in names and passwords, but nothing else. This setting is usually fine for transmitting data over office networks or other secure connections.

On the Internet, intranets, or wide area networks, however, it is usually a good idea to encrypt your data, including files, text from chat sessions, and instructions sent to the remote computer during Remote Control.

While opening your host computer to incoming connections, you can specify whether and how data transmitted over those connections will be encrypted. The settings on the guest computer are irrelevant. It is the settings on the host computer that determine encryption.[1]

To encrypt data over incoming connections:

1   Click the Security button on the LinkBar.

2   On the Encryption tab, check this box: Use Encryption to Send Data.

3   If you want to limit encryption to connections over a TCP/IP network or to dial-up connections to a TCP/IP network, including the Internet, check this box: Only Encrypt When Connecting over TCP/IP (Internet/Intranet).

4   Click a method of encryption:

- **LapLink-compatible Encryption**   Provides compatibility with versions earlier than LapLink 2000.

- **CryptoAPI Encryption Using the Specified Provider**[2]   Sets a higher degree of security, using an algorithm installed on your computer. Cannot be used in connections with versions earlier than LapLink 2000.

5   If you clicked the CryptoAPI Encryption option, click a CryptoAPI provider in the box below the option.

Be sure to specify a provider that is installed on the remote computer too. That computer cannot connect to your computer otherwise.

6   If you clicked the CryptoAPI Encryption option—but still want to accept calls from earlier versions of LapLink (which lack CryptoAPI)—check this box: Use LapLink Encryption If Guest Doesn't have CryptoAPI.

CAUTION This option opens your computer to a lower level of security than you specified in the previous step.

TIP   Be sure to enable encryption *before* a connection is opened. Changing the setting during a connection won't have any effect until the next connection.

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1   The only exception occurs when you connect to a computer running a version older than LapLink 2000. In this case only, the settings on your newer LapLink 2000 guest computer determine encryption levels.

2   CryptoAPI encryption is available only if your computer is equipped with software written to the Microsoft CryptoAPI.

5 Using Remote Control

Using Remote Control—Overview

Whenyou open a Remote Control window, you can view and operate the host as if you were sitting in front of it. Images from the host appear on your screen in a Remote Control window within the LapLink workspace. .

Remote Control provides a way to operate another computer at a distance. You begin Remote Control as soon as you open a Remote Control window. While you are working in this window, your mouse moves the mouse pointer on the remote computer, your keyboard types characters on the remote computer, and your Remote Control window shows the remote computer's screen.

Remote Control terminology

A LapLink Remote Control session consists of the following:

Guest The Remote Control window and the mouse and keyboard on the guest are your links to the remote computer. Working in the Remote Control window, you use your mouse and keyboard to operate the host. Your work, meanwhile, is being processed on the host computer.

Host There is no special procedure associated with setting up a host. The computer need only be running LapLink and configured to allow incoming connections. You do not need to be at the computer. On the other hand, you may want to join the guest as an observer or an active participant.

Opening a Remote Control window

On a guest, you can open a Remote Control window at the time you connect to the host. Or you can open one sometime after the connection is made. Because LapLink sup-

ports multiple connections, the guest can maintain several Remote Control windows, one for each host computer.

To open a Remote Control window while connecting:

- Click the Connect Over button on the LinkBar and then click Modem, Network, or some other means of connecting. Under Services, check the Remote Control box. (For more information about connecting to other computers, see "How can I connect to other computers?)

To open a Remote Control window after opening a connection:

- Click the Open Remote Control button on LapLink Gold Corporate's left shortcut bar.. Or click Open Remote Control on the Window menu.

- If you have more than one connection, select a window for the desired connection *before* clicking the Open Remote Control button.

What you see

The host screen appears on your screen as a window within LapLink. The name of the host computer appears in the window's title bar. You can move, resize, minimize, or maximize the window as you would any other window. Use the scroll bars to view other parts of the host screen.

Hosting a Remote Control session

For Remote Control to take place the host need only be running LapLink—you do not need to be at the computer. Sensitive information is protected by the conditions of the connection. You can grant greater access, or limit these conditions, through the LapLink security system.
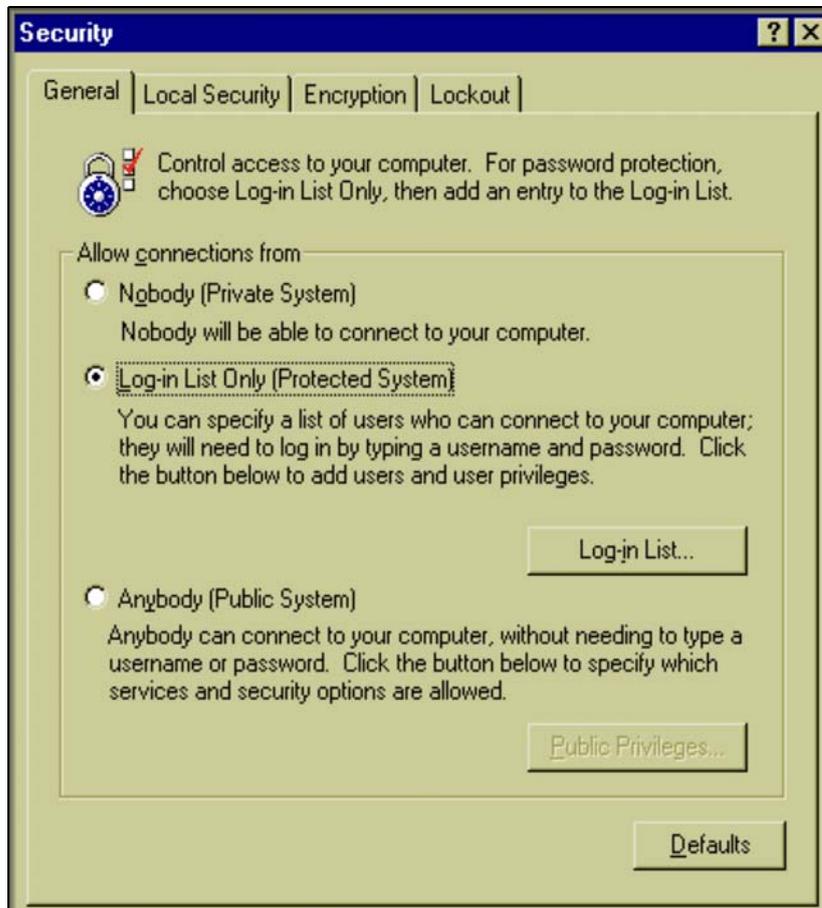
After installation, change the default security setting to allow your computer to accept incoming connections and serve as a host.

To host a Remote Control session, leave LapLink running. (Minimize it if you wish.)

When you control a host, you specify who can connect to that computer and the kinds of services they can use. For example, you can limit a guest to Remote Control only, or you can allow access to Text Chat and File Transfer as well. You can even allow a guest to blank your computer's screen or disable the mouse and keyboard. All of these options are set in the LapLink security system.

You can leave the host computer unattended, giving an authorized user exclusive control. Or you can stay at the computer and interact with the guest by trading off control. For example, the two of you could edit a document together, participate in a training session, or explore a new program.

When in a Remote Control session, both users can end up competing to control the mouse and keyboard, which can be frustrating and confusing for both parties. To avoid this problem, consider using "Host Locking On Connect" to disable the host machine's keyboard and mouse, and if you choose, to blank the host machine's screen. See "Disabling the host keyboard and mouse and blanking its screen" for more information.

TIP A host can be controlled by only one computer at a time. In the meantime, however, other computers can connect to the host using any other services.

What you see on a host

When a guest connects and begins Remote Control, your LapLink workspace is minimized on the host. If you double-click the icon, the LapLink workspace is restored to a window.

At the bottom of the restored LapLink workspace, you see an icon for the Remote Control connection. The icon is identified by the name of the remote computer. Clicking this icon displays a Windows menu with standard commands. Clicking Close closes the Remote Control connection.

TIP You can make the LapLink workspace remain a window when a guest connects: Click Remote Control Options on the Options menu, and then click the Host tab. Clear this box: Minimize LapLink When This Computer Is a Host.

Reversing a Remote Control session

There may be times when the guest and you want to switch roles so that you become the guest controlling the remote computer.

To reverse the direction of Remote Control, the current Remote Control connection must be broken on either computer. Then, as the prospective guest, you open a Remote Control window and begin controlling the other computer.

TIP To avoid breaking the connection when a Remote Control connection is closed, make sure that there is at least one other service window open, such as File Transfer. If Remote Control is the only service in use, open another service window *before* closing Remote Control.

Viewing the host

As a guest, you can alternate between two views of the host screen. Your first view appears in a window within LapLink. Inside the window, you control the host; outside the window, you perform other tasks, in LapLink or in other applications on your computer. Switch to a full-screen view when you want to maximize your view of the host and use Remote Control exclusively. When you cannot see the entire host screen even in full screen, you can change the resolution of the host screen or scale its image to fit within your view.
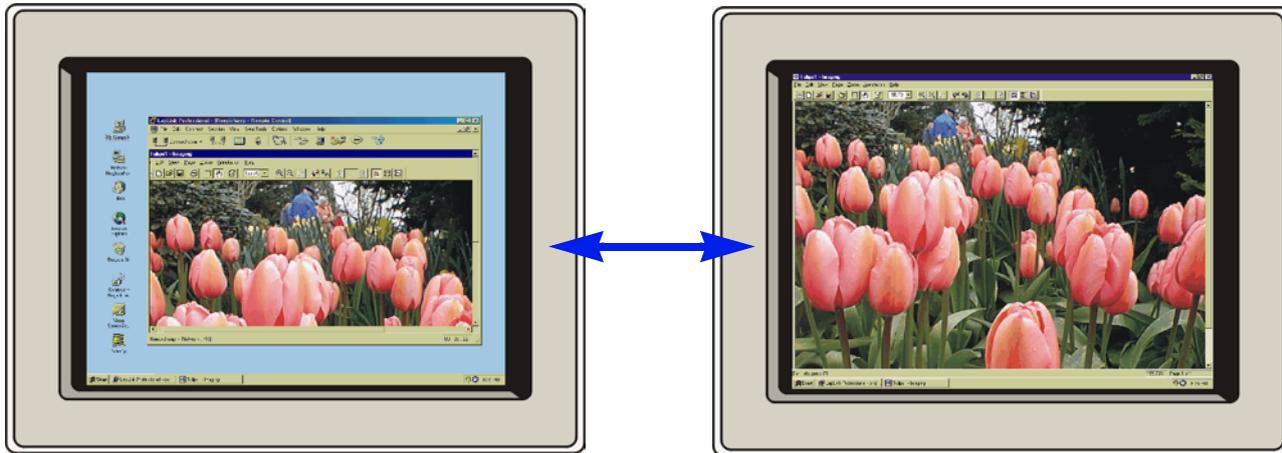
To alternate between a window and a full-screen view of the host, press CTRL+SHIFT+F.

Devoting your entire screen to a view of the host

You can view the host screen in two ways:

- In a window within LapLink (the default)
- As a full-screen display, hiding LapLink and the rest of your Windows workspace

In a window view, you have quick access to File Transfer, Text Chat, and other LapLink features. You can also switch to other applications on your computer.

To maximize the area in which you view and control the host, switch to a full-screen view. Your entire screen is now devoted to controlling the host; you do not have access to your own applications. When you want to do something other than control the host, switch back to the window view.

To switch between window and full-screen view:

• Press CTRL+SHIFT+F.

TIP In full screen, you can also switch to a window from the copy of LapLink running on the host: If LapLink is an icon, click it to restore it to a window. Then click the icon representing your Remote Control window, and click Guest Full Screen to clear the check mark.

TIP To make Remote Control alternate between full screen and icon, bypassing the window view, click Remote Control Options on the Options menu. On the Guest tab, check the Always Use Full-Screen box.

Viewing the entire host screen at once

There are two ways to fit the host screen into your view:

• From your computer, lower the resolution of a higher-resolution host screen to match that of your screen.

• Scale the image of the host screen to fit within your view.

Temporarily changing the resolution of the host display adapter When using a laptop to control a desktop, you often can't view the entire host screen at once if the desktop operates at a higher screen resolution. From your laptop, you can lower the desktop's screen resolution to match your laptop's.[1]

You can then view all of the host screen in full-screen view. The original resolution is restored automatically on disconnect or at your direction.

To lower the resolution of the host screen to match that of your screen:

1 On the Options menu, click Remote Control Options.

2 On the Guest tab, check this box: Match Host to Guest.

Clearing the box restores the host to its original resolution.

3 Click OK.

Scaling the image of the host screen to fit You can also view the entire host screen at once by scaling the image to fit within the LapLink window. You always see all of the host's screen, whether you are working in full screen or window, though the image may be distorted or compressed.

To scale the image of the host screen to fit within your view:

• Press CTRL+SHIFT+S.

• Pressing CTRL+SHIFT+S again restores the image to normal.

---

1 You cannot lower the resolution of a host computer unless its monitor and display adapter allow the change without restarting Windows. The host must also be running a version of LapLink that supports this feature.

Customizing keyboard control

By default, Windows system keys pressed on the guest computer take effect on the host. If you want the system keys to operate on the guest while working in a Remote Control window, click Remote Control Options on the Options menu. Then on the Guest tab, click Execute on Guest. Through Remote Control Options, you can also change the key combinations that control your view of the host.
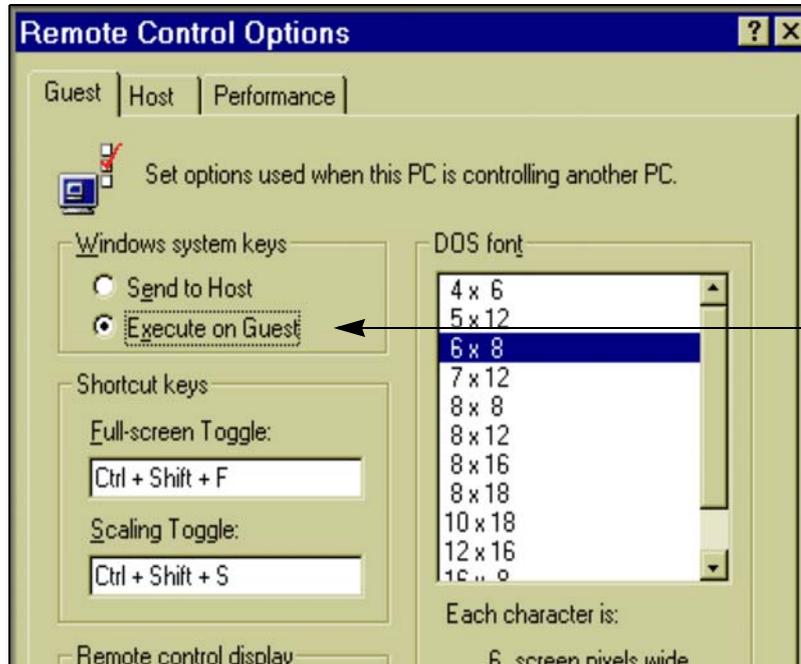
When you are working in a Remote Control window, CTRL+TAB and other Windows system keys you press on your computer (the guest) take effect on the remote computer (the host).

To have system keys take effect on your computer instead of the remote computer, click Execute on Guest.

Windows system keys

Windows system keys are key combinations that perform a variety of tasks. Pressing ALT+TAB, for example, switches to the program you used last. The 'Windows' Start key found on most keyboards is another example. By default, LapLink sends most system keys to the host during Remote Control: pressing ALT+TAB on the guest, therefore, switches to the program last used on the host.

You can make system keys work on your own computer (the guest) when you are working in a Remote Control window.

TIP   Windows system keys (except CTRL+ALT+DELETE) always take effect on the host when you are using Remote Control in the full-screen view.

TIP   If you intend to control a remote computer using the keyboard exclusively (without a mouse), set the Windows system keys to execute on your computer (the guest). When you want the keys to execute on the remote computer (the host), switch to the full-screen view.

To execute Windows system keys on the guest:

1   On the Options menu, click Remote Control Options, and then click the Guest tab.

2   Click Execute on Guest.

3   Click OK.

Remote Control shortcut keys

LapLink offers two shortcut keys to change your view of a host screen. Pressing CTRL+SHIFT+F switches between full-screen and window view of the host. Pressing CTRL+SHIFT+S switches between scaled-to-fit and normal view. (See for more information.)

You can change these default key combinations to certain other combinations. (To avoid interference with other LapLink and Windows shortcut keys, you are limited in your choice of replacements.)

To change the LapLink shortcut key combinations:

1   On the Options menu, click Remote Control Options.

2   On the Guest tab, click in one of these boxes:

   • **Full-screen Toggle**   Changes the shortcut key that alternates between full-screen and window view.

   • **Scaling Toggle**   Changes the shortcut key that alternates between scaled-to-fit and normal view.

3   Change to any of the following key combinations (where n is a number or a letter):

SHIFT+ALT+n
CTRL+SHIFT+n
CTRL+ALT+n
CTRL+SHIFT+ALT+n

Disabling the host keyboard and mouse and blanking its screen

From a guest computer, you can ensure privacy and prevent interruptions at the host by disabling its keyboard and mouse and blanking its screen. To perform any of these "locking" operations from the guest, click the appropriate command on the Session menu. On the host, you must allow locking by changing the default security setup.

Log-in List Privileges

General | Folder Security | Modem Callback

Specify the allowed user privileges.

User information

Log-in Name:

Password:

Services

☑ File Transfer   ☑ Remote Control   ☐ Print Redirection
☐ Text Chat   ☐ Voice Chat   ☐ Firewall

Locking

☐ Blank Screen   ☑ Disable Mouse   ☑ Disable Keyboard

Defaults

OK   Cancel   Apply   Help
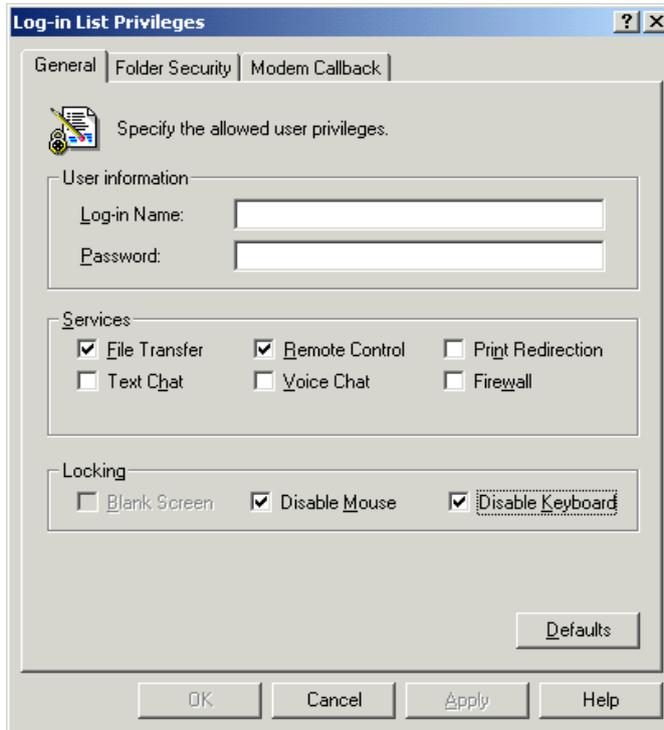
On the host: Allow users to blank the screen and disable the keyboard and mouse when you grant them access through the Log-in List.

On the guest: Blank the host screen and disable its keyboard and mouse through the Session menu.

Configuring a host for locking

You can configure a host to determine who can lock it and how it will be locked. Guests cannot lock the host without your permission, and locking privileges you grant cannot be changed during a Remote Control session.

Whether you permit any kind of locking depends on how you intend to use LapLink. If you want to use Text Chat, for example, there should be no locking.

You grant locking permission by changing the security setup on the host computer: Click the Security button on the Link-Bar. You then have a choice:

*   Set up a Log-in List by specifying Log-in List (Protected System) and adding one or more entries. In each entry, check any of the three boxes under Locking Permissions. The permissions apply only to guests whom you provide with the appropriate log-in name and password. For more information about setting up a Log-in List, see "Allowing incoming connections.

*   If security is not an issue, open the system to any LapLink user by clicking Anybody (Public System). Click the Public Privileges button. On the General tab, check the Remote Control box, and then check any of the three boxes under Locking Permissions. The permissions apply to all guests.

Locking the host from the guest

With the permission of the host computer, you can:

Blank the host screen   The host's screen is darkened, preventing your work from being viewed at the host.

*   **Disable the host mouse**   The host's mouse is locked, preventing anyone at the host from using the mouse to interrupt your work.

*   **Disable the host keyboard**   The host's keyboard is locked, preventing anyone at the host from using the keyboard to interrupt your work.

To lock the host during a Remote Control session:

*   On the Session menu, click any of these commands to place a check mark beside the command: Blank Host Screen, Lock Host Mouse, or Lock Host Keyboard.

*   To disable locking, click the command again to clear the check mark.

TIP   If a command is dimmed, it is not available: either the host cannot perform the action, or the security setup of the host computer does not allow it. Support for screen blanking is determined by test performed after the installation of LapLink Gold Corporate, and after any changes to the Windows display settings.

TIP   The Session menu is available only when you are connected to another computer.

TIP   Through the Address Book, you can request the kinds of locking you want to take effect as soon as you open a Remote Control session. Your requests will be honored as long as they are allowed by the host. For information on using the Address Book to make connections, see "Using the Address Book.

Rebooting and logging on to the host

From a guest computer, you can reboot a host computer and restart Windows. To reboot a host from the guest during Remote Control, click the Reboot Host command on the Session menu. To configure a host for rebooting and restarting Windows, click Remote Control Options on the Options menu.
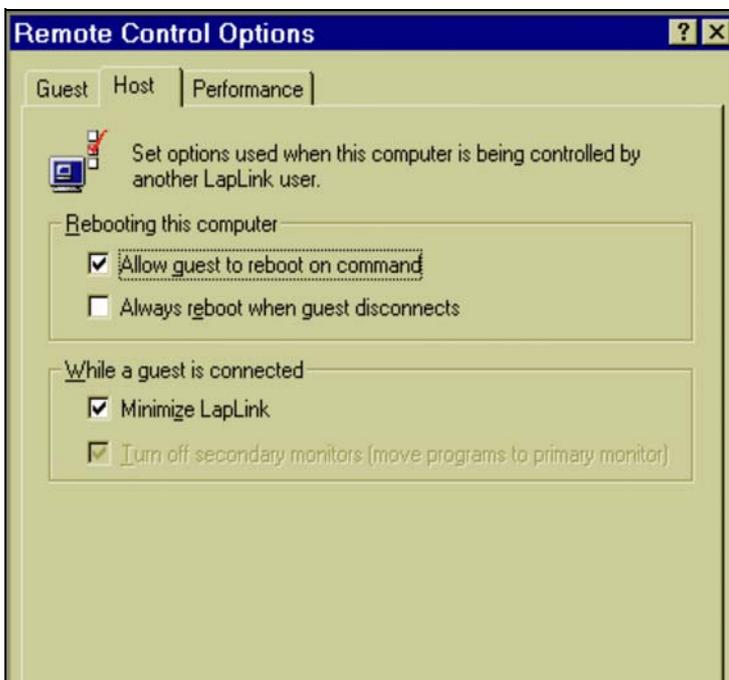
On the host: Allow users to reboot the computer in Remote Control Options.

On the guest: Reboot the host on the Session menu.

Rebooting the host from the guest

From a guest computer you may want to restart a host to put into effect changes you have made on that computer. Or you may want to restart a host computer to ensure that no one else can call in after you disconnect.

To reboot the host from the guest during Remote Control:

• On the Session menu, click Reboot Host.

   If Reboot Host is dimmed on the Session menu, the host has not set the option to allow rebooting by a guest.

Logging onto Windows NT, Windows 2000, XP or 2003 from the guest

You must always press CTRL+ALT+DELETE before you can log on to Windows.

To send CTRL+ALT+DELETE to the host, do one of these:

- Press the key combination specified for this purpose on the host. By default: CTRL+SHIFT+D.
- On the host's Session menu, click Send CTRL+ALT+DELETE to the Host.
- Click the Remote Control icon at the bottom of the host's LapLink workplace, and then click Feed CTRL+ALT+DELETE.

Configuring the host for rebooting

You must configure a host to allow any guest to restart it during a Remote Control session. You can also require that the host be restarted whenever a Remote Control connection is interrupted.

To configure a host computer for rebooting:

- On the Host tab of Remote Control Options (Options menu), check either or both of these boxes:
  - **Allow Guest to Reboot on Command**   Check this box to allow guests to restart the host using the Reboot Host command on their computers.

- **Always Reboot When Guest Disconnects**   Check this box to require that the host be restarted whenever a guest breaks a connection or the connection is broken accidentally.

Ensuring access to the host after a reboot

At the same time you are configuring a host for rebooting, you can configure it so that a guest can resume a LapLink connection after the host is rebooted. You can do this by setting up LapLink to run whenever Windows is started.

To configure a host so that it automatically runs LapLink each time Windows is started:

- On the Advanced tab of Program Options (Options menu), check this box: Always Start LapLink before Windows Logon Prompt.

Logging on to Windows NT   When a Windows NT, Windows 2000, XP or 2003 host requires the user to press CTRL+ALT+DELETE at logon, a guest can press a special key combination specified on the host.

To specify the key combination for CTRL+ALT+DELETE:

1 On the Host tab of Remote Control Options (Options menu), change the key combination in this box: Send CTRL+ALT+DELETE to this computer when a guest presses this key combination.By default, it is CTRL+SHIFT+D.

2 Press one of the chosen key combinations

Taking Screen Shots

Laplink now allows you to snap a screen shot from the host computer and save it to your hard drive during a remote control session. This is very useful for capturing error messages, odd displays or other behavior that might be hard to describe. Using Screen Shot will save technicians time when troubleshooting.

Taking a Screen Shot

To take a screen shot, you must first establish a Remote Control session with a host computer. Once this connection has been established, simply click on theSession menu, and choose Screen Shot to take a snapshot of the host desktop. You will see the dialog box below.

Window or Full Screen?

Laplink allows you to take two different types of screen shots. If you use Window, you will get a snapshot of the current active window on the remote desktop. Choosing Full Screen will provide you a picture of the entire remote desktop screen. See the difference on the screens to the right.

Full Screen view
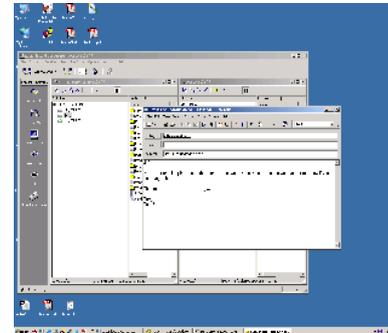
Window view

Saving a Screenshot

Once you've taken a snapshot of the screen, you can save it to your hardrive for later viewing. Laplink saves the snapshot as a PNG file, which by default are viewed with Internet Explorer.

NOTE:Internet Explorer 5.0 or higher must be in use in order to view PNG files.

Viewing a Screen Shot

To review snapshots you've taken, click on the Session menu, and select View Screen Shot. This opens the View Screen Shot dialog, where you can view thumbnail screens of your snapshots, view them full screen, and delete screenshots you no longer need. You can view captured screens anytime, whether connected or not.

Viewing a Screen Shot

Highlight a thumbnail, and click View to view captured screens.

Select Sessions, View Screen Shot to access previously captured screens.
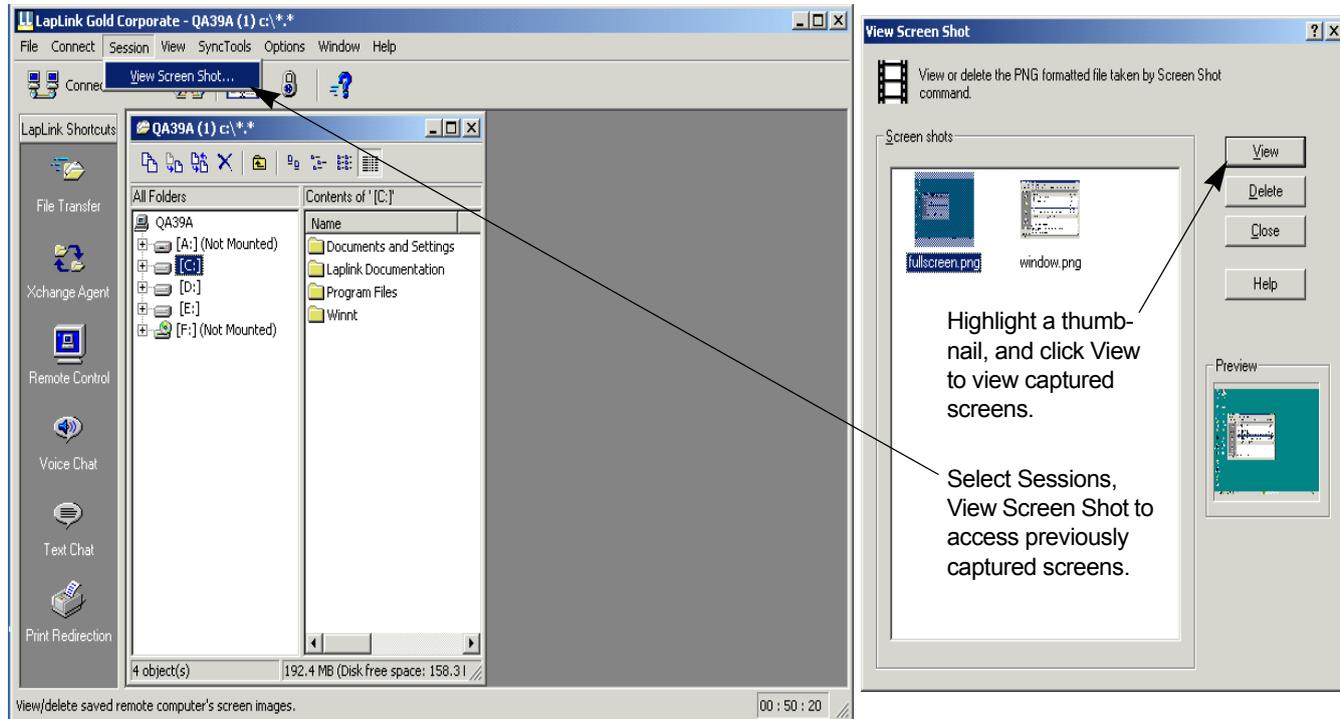
NOTE: From the Sessions menu, choose View Screen Shot. Note that screen viewing is enabled both during a session and when not connected, and it is the only Session option available when not connected. Once you've selected a thumbnail snapshot, and clicked the View button, Laplink launches Internet Explorer or whatever application your computer has associated with PNG files.

NOTE:If you want to access the PNG files themselves,
LapLink Gold Corporate saves them to the
C:\WINNT\TSI32\LLW directory.

Saving System Information

Laplink makes it possible to capture important system information on the host computer, and save it to a file on your local machine. This troubleshooting tool provides your support professionals with a single report offering a great deal of useful information.

Saving System Information
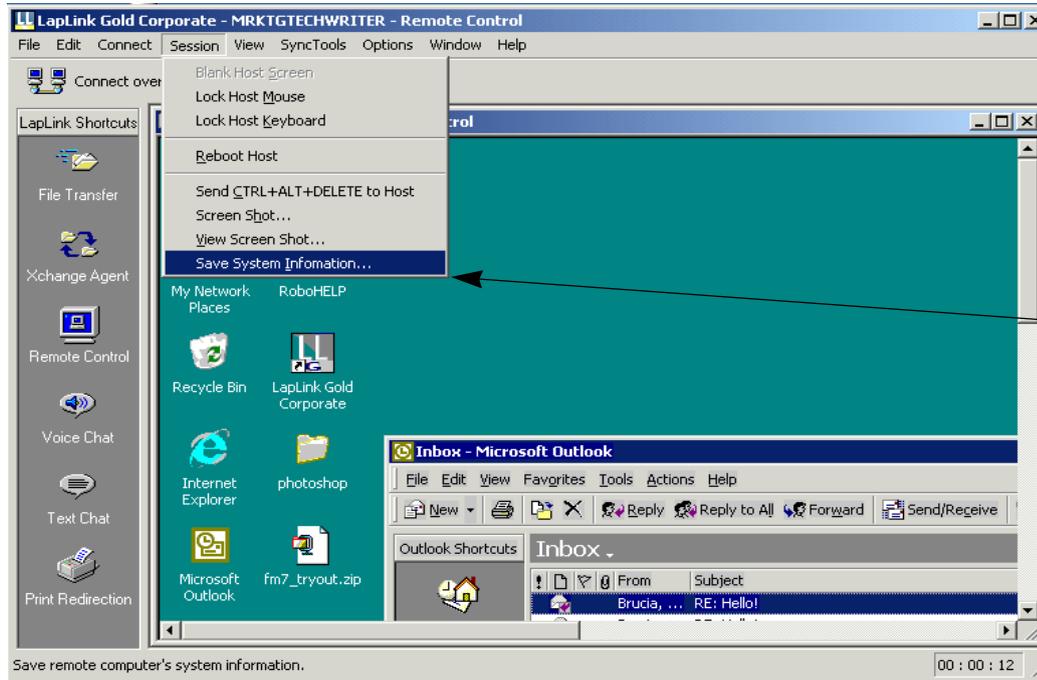
To save system information from the host computer to your local machine, you must first be connected via a Remote Control session.

Once this connection has been established, choose Session, Save System information

Laplink saves all Windows system information from the remote computer, and exports it to your computer. For this reason, you'll see a popup message, seen below.

Save System Information

In some cases it may take some time to complete this operation since this command will obtain all Windows system information on the remote computer.

Would you like to continue this operation?

[Yes]   [No]
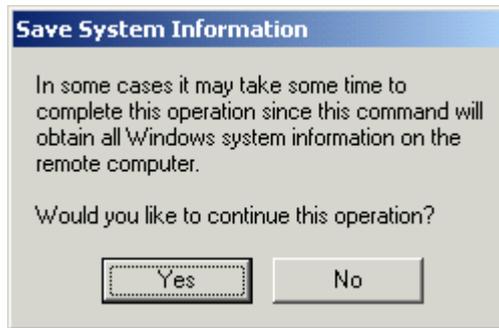
Laplink Gold lets you know the report you are about to create may take a few minutes.

Next, it asks you where to save the file.

Save System Information

Save in: My Documents

Adobe
My eBooks
My Pictures

File name: [Save]

Save as type: System Information File(*.txt)   [Cancel]
[Help]
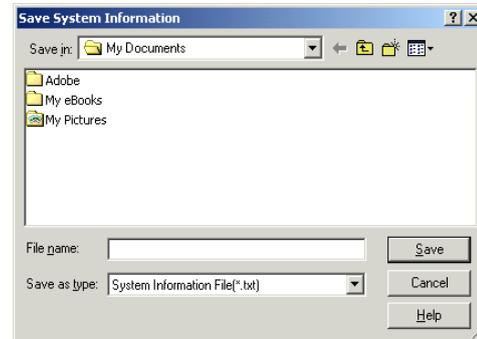
Creating a Report

Laplink creates a report that saves your Windows System information. Below are just a few of the headings of information contained in your Laplink report.

•System summary information

•Hardware resources

•IRQ information

•Memory

•Components

•Audio and Video Codecs

•Devices

•Display

•Keyboard

•Adapters

Sharing clipboard information with remote computers

Computers in a Remote Control connection share a common clipboard: you can copy or cut information to the clipboard on one computer and paste this information on another. .

When you cut or copy information for pasting in another document, the information is stored temporarily in the clipboard. Normally, clipboard information is transferred between documents on the same computer. When you use Remote Control, however, you can use the clipboard to transfer information from one computer to another. You can copy text or graphics on the host computer, for example, and paste it on the guest.

TIP   Only information placed in the clipboard *during* Remote Control can be pasted on other computers. You cannot share any information copied or cut to a clipboard before a Remote Control connection is opened.

TIP   When you clear the contents of the clipboard on one computer, you clear the clipboard contents of the other computer as well.

Pasting from the clipboard during Remote Control

When you copy or cut information to the clipboard during Remote Control, only a small part of the information is transferred to the other computer immediately. The rest of the information is transferred when you paste.

To prevent the loss of information added to the clipboard from the remote computer during Remote Control, paste the information before disconnecting.

If you are controlling several host computers, information in the clipboard on your computer is available to any of them. If you want to transfer clipboard information from one computer to another, however, you must first paste the information into a document on your guest computer; then paste it into a document on another remote computer.

Disabling clipboard sharing

By default, clipboard sharing is available during Remote Control sessions unless you disable it.

To disable clipboard sharing:

1 Open a Remote Control connection to another computer.

2 On the Edit menu, click Link Clipboards to clear the check mark.

  If there is data in the common clipboard that hasn't been transferred completely, you are asked whether to complete the transfer.

TIP   To enable clipboard sharing again, repeat the procedure to restore the check mark to Link Clipboards. Only data placed in the clipboard *after* you enable this option can be shared with other computers.

Customizing Remote Control performance

As a guest, you can change several Remote Control settings either to speed up performance or to enhance your view of the host screen. When speed is your priority, change the settings to enhance performance. When you want the best view of the host screen, turn off the performance enhancements. .
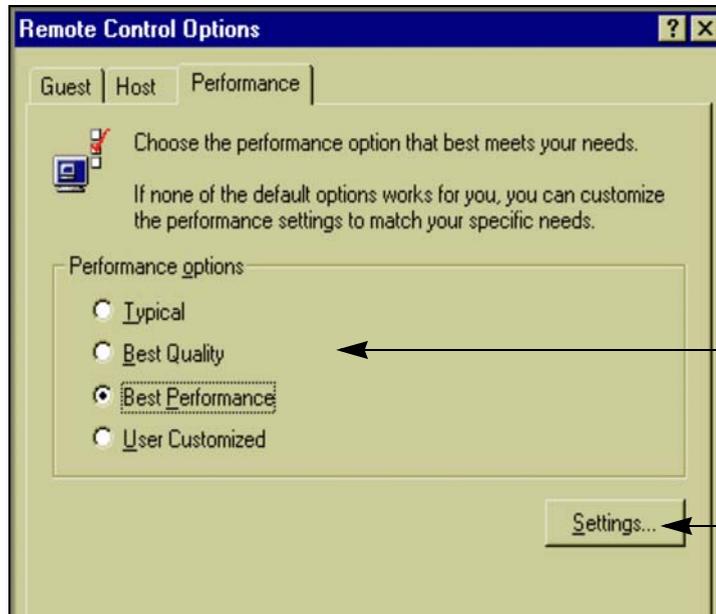
Choose between enhancing your view of the host screen and speeding up Remote Control performance.

Click one of the preset options.

Or click the Settings button and specify your own settings.

To improve Remote Control performance, LapLink temporarily alters the host screen by removing its wallpaper, screen saver, and other visual enhancements. You can restore any of these enhancements. Or you can improve performance even more by minimizing the number of bitmaps and bitmap colors transferred over a connection.

To change Remote Control performance settings:

1 On the Options menu, click Remote Control Options.

2 On the Performance tab, click either of these options:

- **Best Quality**   Improves the appearance of fonts and does not change the appearance of the host screen except to disable its screen saver.
- **Best Performance**   Displays smaller bitmaps in black and white and does not show larger bitmaps at all; also changes the appearance of the host screen to maximize performance.

3 To customize the settings for any of these options, click the Settings button.Changing your view of the host screen

Click the Settings button in Remote Control Options to change the quality of your view of the host screen without affecting the host screen itself.

On the Guest Display tab, adjust these options:

Send Font Information Displays text and symbols on the guest computer. Checking this box speeds display performance but may not present the most accurate representation of text and symbols.

Prevent Display of Large Bitmaps Determines the size of the largest bitmap to be displayed in your view, ranging from 32 by 32 to 512 by 512 pixels. Choosing a smaller size improves performance but may cause bitmaps not to appear in some dialog boxes, wizards, and buttons. (Experiment with the setting, increasing it as necessary to display larger bitmaps.)

On the Guest Colors tab, adjust these options:

Use Solid Colors Displays solid colors instead of dithered, or patterned, colors. Performance is not affected, but your view of the host may improve.

Bitmap Color Selects the palette used to display bitmaps. The values range from Monochrome to True Color (24 bit). Choose a palette with fewer colors to improve performance.

Temporarily changing the host screen

Click the Settings button in Remote Control Options to alter your view of the host by changing the appearance of the host screen itself. When you disconnect, the host screen is restored to its original appearance.

On the Host Display tab, change these settings:

Disable Screen Saver Keeps the host's screen saver from running.

Disable Special Windows Effects Disables several Windows features, including desktop wallpaper or patterns, animated windows, and Web Page view.

6 Using File Transfer

Using File Transfer—Overview

Once you have connected to another computer and opened File Transfer windows, you are ready to transfer files between the computers. First, display your target, and then select the files you want to transfer. If you want the files on both computers, copy them. If you want to transfer the files to one computer and delete them from the other, move the files.
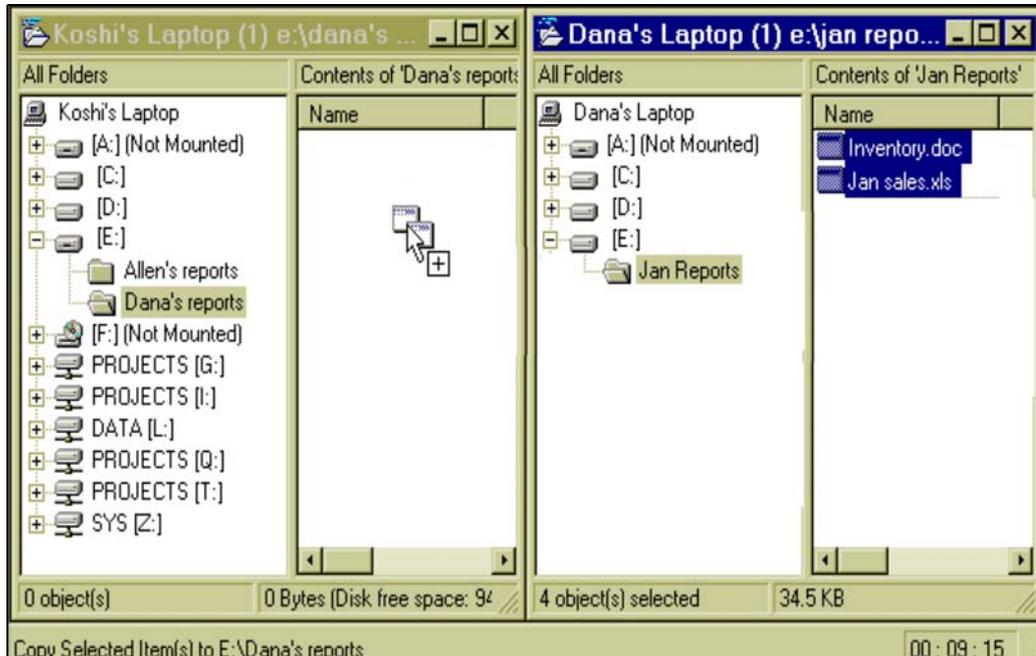
You can open File Transfer windows at the time you connect to a remote computer. Or you can open File Transfer windows sometime after the connection is made.

NOTE In Windows, *folder* and *subfolder* are used in place of *directory* and *subdirectory*.

To open File Transfer windows:

• Connect to another computer with the File Transfer service selected, or click the Open File Transfer button on the Shortcut bar. Or click Open File Transfer on the Window menu.

NOTE If you click the 'Open File Transfer Window' button when no active connection has been established, you'll be creating a local-to-local file transfer connection.

- Two File Transfer windows appear: one for the remote computer, one for your computer. Using these windows, you can view all the files on any drive on both computers.

Step one: display the target

To use the drag-and-drop method of copying and moving files, first find your target and make it visible on your screen. A target is the drive or folder you want to transfer the files to.

To display the target:

1. Identify the target window: it may be the window for your computer or the remote computer—whichever you want to receive the files.

2. On the left side of the target window, double-click the target drive.

3. Click the target folder. Its contents now appear on the right.

4. If you are looking for a subfolder, click the plus sign (+) beside the folder containing the subfolder. Then click the subfolder itself.

NOTE To determine which File Transfer window is which, look for the computer name in the title bar, at the top of each window. In the case of a local-to-local connection, each window will show the same name, followed by a (1) or (2).

Step two: select the files

In the opposite File Transfer window, select the files you'll be transferring to the target you just displayed.

To select the folders and files you want to transfer:

- On the right side of the window, click the folder or file you want to transfer.

- To select more than one item, do either of the following:
  - Hold down CTRL as you click each item.
  - To select two or more items listed next to each other, click the first item and press SHIFT while you click the last item.

NOTE If you prefer, select a group of files or folders by clicking at a right corner of the group and dragging to the opposite corner to form a selection box.

Step three: drag and drop

Using the drag-and-drop method simplifies file transfers. Keep in mind the difference between copying and moving: Copying puts a copy of the files on the other computer, leaving the originals where they were. Moving puts the files on the other computer, deleting the originals.

To drag and drop the selected files:

- To copy the files, hold down CTRL and your left mouse button as you drag them to the target folder.

- To move the files, hold down SHIFT and your left mouse button as you drag them to the target folder.

TIP If you drag without using CTRL or SHIFT, files are *copied* when you drag to a different drive or computer and *moved* when you drag to another location on the same drive.

Navigating through drives and folders

Each File Transfer window is split into a left and a right side. The left side is designed for navigating through drives and folders: click or double-click a drive or folder to open it and display its contents. On the right side, you see the contents of the open drive and folder. Commands on the View menu let you change the appearance and the order of the contents.

Click a drive or folder to open it, without showing its contents.

Double-click a drive or folder to open it and show its contents.

Click a plus sign to show the contents of a drive or folder without opening it. Click a minus sign to hide the contents.
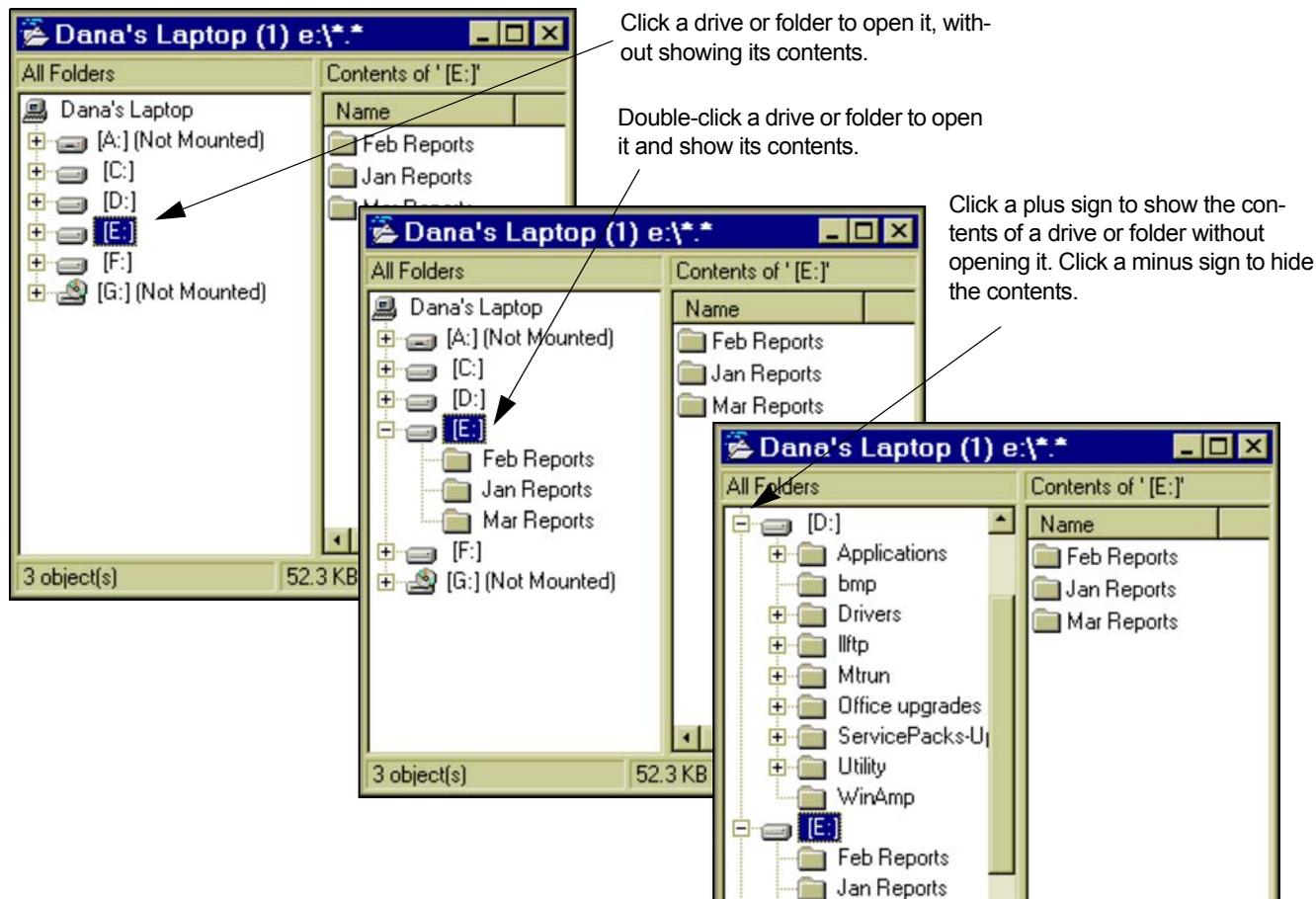
Follow these guidelines to navigate through the left side of a File Transfer window:

- **Double-click a drive or folder**   Opens and expands the drive or folder, displaying its subfolders immediately below. (Double-clicking is the fastest way to navigate downward in a hierarchy of folders.)

- **Click a drive or folder**   Opens the drive or folder without expanding it.

- **Click a plus sign (+)**   Expands the drive or folder, displaying its subfolders immediately below. The drive or folder is not opened.

- **Click a minus sign (-)**   Collapses the drive or folder, hiding its subfolders.

TIP   Want to locate a particular folder or file? Type the first letter of its name. The highlight moves to the next item beginning with that letter. Typing the letter again finds the next occurrence.

Changing the view

When you open a drive or folder, you see its contents—subfolders and files—on the right side of the File Transfer window.

By default, the contents appear in Detail view: file name, size, type (based on the MS-DOS name extension), modification date, and attributes.

To change the appearance of the items displayed on the right side of a File Transfer window:

- On the View menu, click one of these commands: Large Icons, Small Icons, or List.

Try the different views to find your preference. To return to the original view, click Detail.

Sorting files and folders

Regardless of the view, you can rearrange the folders and files on the right side of a File Transfer window according to name, size, date, and so on.

To change the order of files and folders:

- On the View menu, point to Arrange Icons; then click one of these commands: By Name, By Type, By Size, By Date, or By Attributes.

TIP   If you are displaying files in Detail view, you can sort them by name, size, type (file name extension), modification date, or attribute: click the corresponding button at the top of a column. Clicking the same button again reverses the order.

Selecting files and folders

On the left side of a File Transfer window, you can select only one folder at a time. On the right side, you can select multiple folders and files. To select a single item, point to it and click the left mouse button. To select several items in sequence, click the first item; then hold down SHIFT while you click the last item. To select items out of sequence, hold down CTRL while you click each one. You can also click Select All or Select By on the File menu. To cancel an individual selection, hold down CTRL, and click the item.
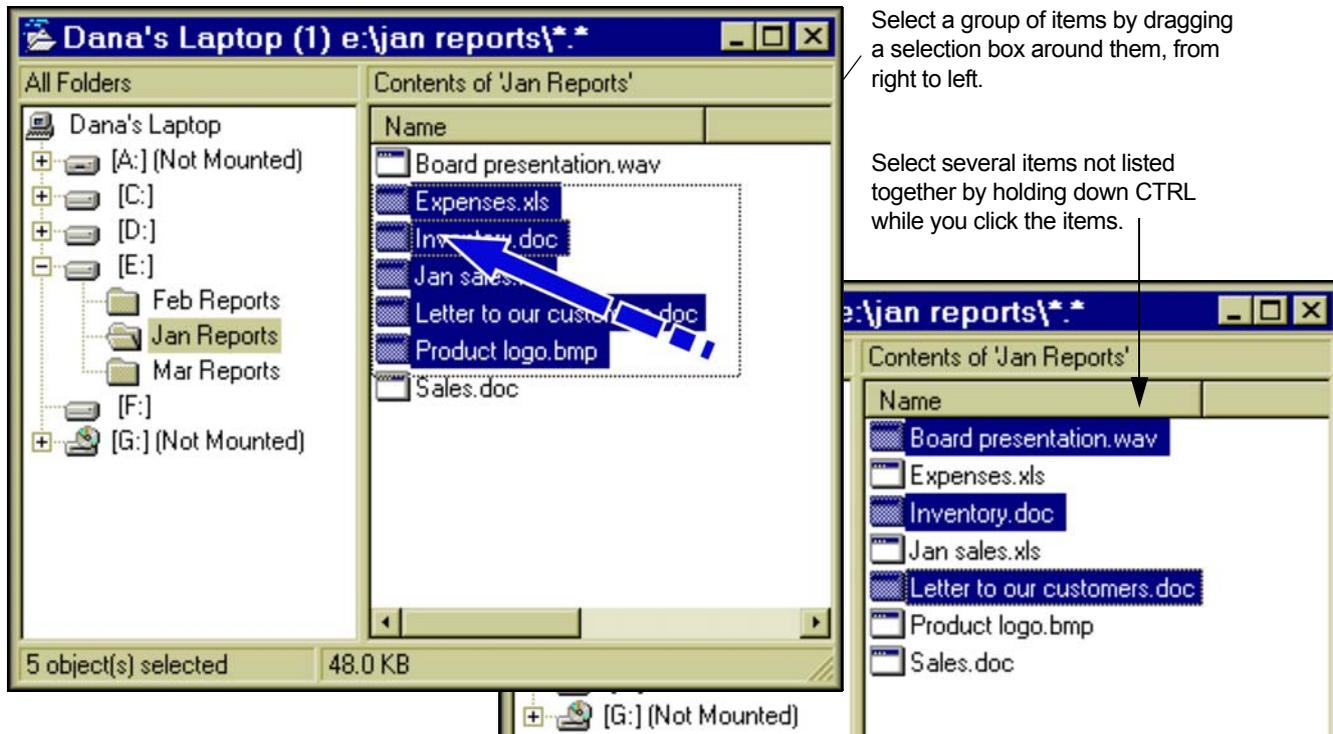
Select a group of items by dragging a selection box around them, from right to left.

Select several items not listed together by holding down CTRL while you click the items.

You must select a folder or file before you can copy or move it. When you select an item, its name and icon are highlighted.

You can select a single folder on *either* side of a File Transfer window. You can select files and multiple folders only on the *right* side.

NOTE By default, selecting a folder selects all of its files and its subfolders. To change the default, click File Transfer Options (Options menu). On the Filter tab, clear this box: Include Subfolders in Copies. (You can always override this setting when you are asked to confirm a copy or move operation.)

To select a single file or folder:

• Place the mouse pointer on its name or icon, and click the left mouse button.

To select a group of items, do either of the following:

• Click the first item, and press SHIFT while you click the last item.

• Click at a right corner of the group and drag to the opposite corner to form a selection box.

To select two or more items out of sequence:

• Press CTRL while you click the items.

To select all folders and files in the current folder:

• On the File menu, click Select All.

TIP To select everything on a drive, click the drive and then click Select All.

To select folders and files using the Select By command:

1 On the File menu, click Select By.

2 In the Filter box, type the name of a file or folder. Or use wildcards to specify items with similar names.

For example, typing `*.DOC` selects all files with the .DOC extension. The default (`*.*`) selects all files and folders.

You can specify several criteria at once by typing them one after another and inserting a space or a comma between them. For example, typing `*.DOC,*.TXT` displays all files with those extensions.

3 If you want to select according to date, check the Enable Date/Time Range box. Then type the dates and times under Oldest File and Newest File.

4 Click OK.

Clearing selections

To clear an individual selection:

• Hold down CTRL while you click the item.

To clear all selections:

• On the File menu, click Clear Selection.

Copying or moving files and folders

Once you have displayed the target and selected the items to be transferred, you are ready to use the Copy or Move command. Or you can use the mouse to drag the items and drop them onto the target. Before the transfer is completed in either case, you see a confirmation dialog box showing details of the operation you are about to perform. You can then proceed immediately, change certain conditions, or cancel the operation entirely.

File Copy	? X
OK to copy selected files and folders?	

From
Reepicheep (1)
C:\My Documents

To
Computer: orvi (1)
Folder: C:\AcrobatReader\HELP

Options
☑ Transfer only if files are newer
☐ Transfer only if files are already on target
☑ Include subfolders
☑ Show statistics when complete

OK
Cancel
Help
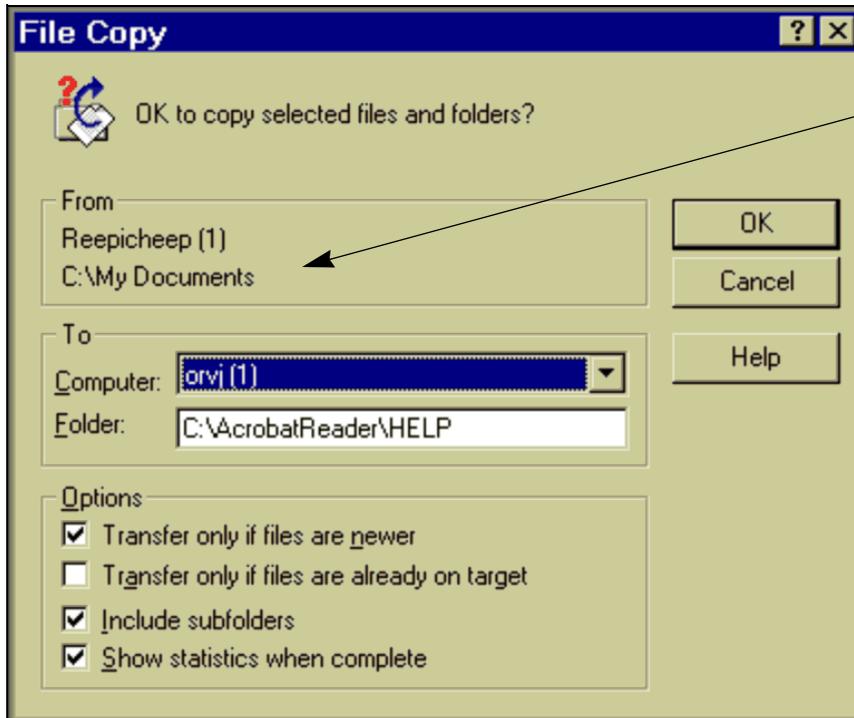
Before copying or moving, you can confirm that you have selected the source and target as you intended.

When you copy or move, you transfer items from one location—the *source*—to another—the *target.* You can transfer items using the Copy or Move commands or by dragging them with the mouse.

To prepare for a copy or move operation:

1. Navigate through the left side of the target window to display the folder where you want to put the selections. Click the folder. (For more information, see page 102.)

2. In the source window, select the items you intend to transfer. Make sure that the source and the target are still showing. (For more information, see page 104.)

NOTE Before attempting to transfer between computers, open a File Transfer window for each of them.

To copy or move using drag and drop:

1. Place the mouse pointer over a single item or one of several items you have selected on the source.

2. Do either of the following:
   - To copy, press CTRL and your left mouse button as you move the pointer over to the target folder.
   - To move, press SHIFT and your left mouse button as you move the pointer over to the target folder.

3. Once the target is highlighted, release the mouse button and the CTRL or SHIFT key.

   You now see the File Copy or File Move dialog box, as shown on the previous page.

To copy or move using a command:

- With the source window still active, click Copy or Move on the File menu.

. . . Copying or moving files and folders

You now see the File Copy or File Move dialog box, as described next.

NOTE Copy and Move also appear as buttons on the toolbar near the top of each File Transfer window.

To complete the copy or move:

1. In the File Copy or File Move dialog box, you can verify the source and the target, change the target, and set options. Do any of the following:
   - Under To, verify the target. You can choose a different computer from the Computer list; in the Folder box, you can type any drive and folder already on the target.
   - Under Options, check or clear the boxes as you wish. For more information, see page 108.

2. Click OK to complete the operation or Cancel to halt it.

   You now see a dialog box reporting on the operation as it proceeds. Click Cancel to halt the operation. If the Protected Files dialog box appears, select the files you want to transfer, and click OK.

TIP Dropping onto a drive puts the selections at the highest level of the hierarchy of folders.

TIP Dropping onto a folder puts the selections inside the folder.

TIP Dropping onto a file puts the selections on the same level as the file.

Setting File Transfer options for the results you want

Certain File Transfer options play a crucial role when you are copying or moving files. Depending on how you set them, you can include or exclude subfolders, prevent the overwriting of files except by newer copies, or copy only files you have backed up before. To specify global preferences for these options, click File Transfer Options on the Options menu; then click the Filter tab. Whenever you confirm a copy or move operation, you can change the settings for that operation.
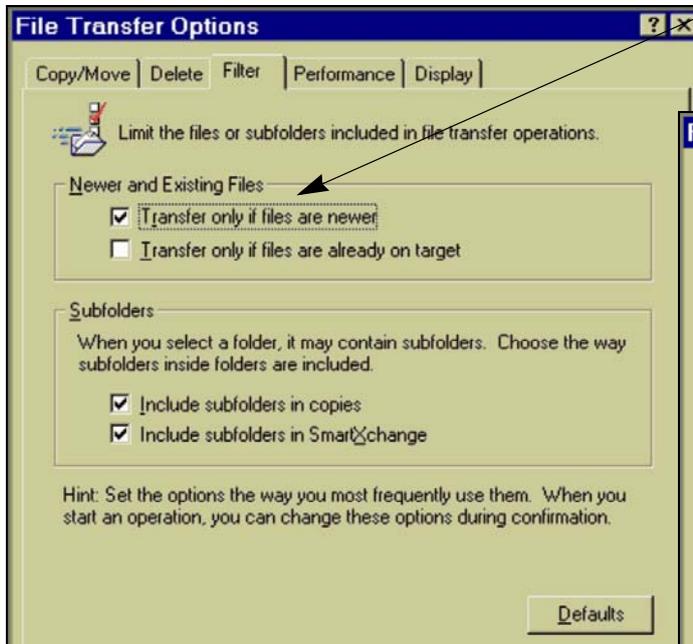
Set global options on the Filter tab of File Transfer Options.

When copying or moving, verify the settings before clicking OK to continue.
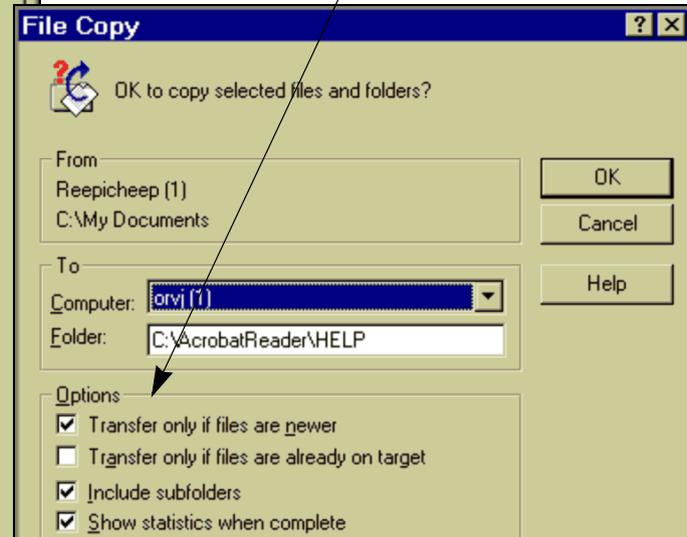
There are three File Transfer options that determine which files are transferred and which are overwritten:

• Transfer Only If Files Are Newer

• Include Subfolders in Copies

• Transfer Only If Files Are Already on Target

The first two options are in effect until you change them.

To change your global preferences for File Transfer options:

• On the Options menu, click File Transfer Options. Click the Filter tab, and then check the appropriate boxes.

When you transfer files, you can tailor these options for that operation before giving your confirmation.

NOTE Before transferring files between computers, ensure that their clocks are reasonably in sync. If they are not, files that appear to be older may actually be newer, and you could lose your most recent work.

Protecting newer copies of files

One of the options—Transfer Only If Files Are Newer—is designed to preserve files that represent your most recent work. It is also useful for speeding up file transfers; files that do not need to be updated are excluded from the operation.

When the box is checked, Transfer Only If Files Are Newer ensures that files are not overwritten by older copies of those files. (Files not already on the target will be copied anyway.) When the box is cleared, files are overwritten without regard to their dates and times.

Including or excluding subfolders

One of the options—Include Subfolders in Copies—is designed for copying a hierarchy of folders and subfolders and is potentially the most powerful of the File Transfer options. It can make the difference between copying hundreds of files or only a few.

When the box is checked, Include Subfolders in Copies extends your selection to include any subfolders within the folders you have selected. When the box is cleared, your selection is limited to the selected files and folders (including the files in those folders); subfolders within folders are excluded.

Updating older copies of files

One of the options—Transfer Only If Files Are Already on Target—simplifies the task of updating older copies of files without adding new ones. It is designed for anyone who regularly updates the same set of files. No matter how many files you select on the source, only those already on the target will be copied; the others will be ignored.

In preparation for using this option the first time, copy the files to the target with the box cleared. When you are ready to update the same files, check the box.

Deleting to the Recycle Bin

By default, any files you delete from a hard drive are "recycled," that is, moved to the Windows Recycle Bin, where you can retrieve them later.

NOTE Whether files are recycled or permanently removed is determined solely by the setting on the guest computer.

To permanently remove files when you delete them in LapLink:

1 On the Options menu, click File Transfer Options.

2 On the Delete tab, clear this box: Move Deleted Files and Folders to the Recycle Bin.

Synchronizing folders with SmartXchange

U se SmartXchange to synchronize two folders in a two-way exchange of files. You can limit the scope of the operation by including only the files already in both folders. You can also use SmartXchange to update a backup folder quickly. In either case, older files are overwritten, but no files are deleted.

In SmartXchange

Files are copied when they are in one folder but not the other.

Files are overwritten when there are newer copies in the other folder.

Files are not copied when there are identical copies in both folders.

After SmartXchange, the two folders are identical.
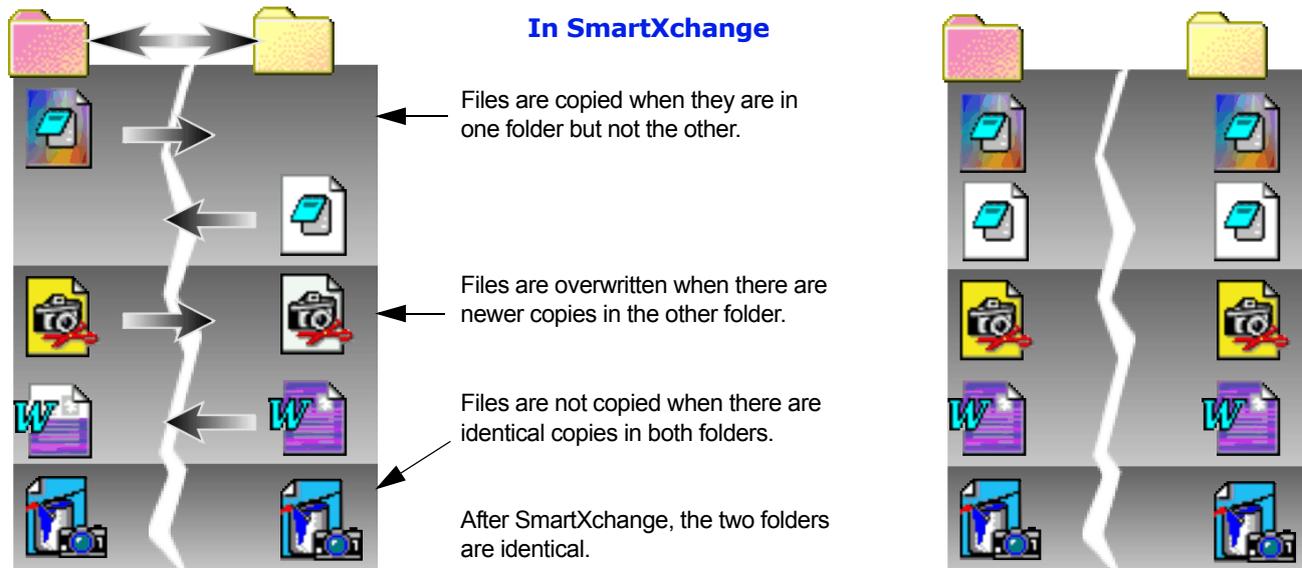
Synchronizing folders

If you have ever copied files back and forth between computers so that they share the latest files, you have synchronized. Unlike the usual copy operation, synchronization works in two directions: from one folder to the other and back again.

NOTE With SmartXchange, you determine the items to be copied by selecting the folder containing the items, not by selecting the items themselves. Select the folder on the left side of a File Transfer window.

With SmartXchange, you can accomplish this in one operation, one folder at a time. You can increase the scope of the operation by including subfolders within the folder. You can limit its scope by exchanging only the files that are on both folders already.

CAUTION SmartXchange is a tool for exchanging files between folders. It does *not* merge the contents of files. If you need to merge databases, schedules, or other shared files, see the documentation for the program in which they were created.

TIP If you synchronize the same folders on a routine basis, consider using Xchange Agent instead of SmartXchange. Xchange Agent automates the process of opening connections, selecting the pairs of folders to be synchronized, setting the appropriate options, initiating the exchange, and disconnecting. For more information, see page 120.

TIP Any files that you intentionally delete on one computer will be automatically replaced by two-way synchronization. If you wish to use a two-way transfer, you must manually delete the files in question on both computers before running the SmartXchange. For more information on deleting data, see page 112.

To use SmartXchange to synchronize folders:

1 On the *left* side of each File Transfer window, click the folder (not an entire drive) containing the files you want to exchange.

NOTE LapLink cannot synchronize an entire drive, the folders containing the Windows operating system, or any other data that is locked (in use).

NOTE To verify which folder is open, look at the title bar, at the top of the File Transfer window.

2 On the SyncTools menu, click SmartXchange. Or click the Sync button on the toolbar near the top of the File Transfer window, or hit F9.

3 Verify that the source and target are correct. If necessary, change the target.

• If you want to include subfolders in the exchange, check this box: Include Subfolders.

• If you merely want to update files—and not add new ones—check this box: Transfer Only If Files Are Already on Target. If you want the two folders to be identical, the box must be cleared.

4 Make sure that this box is cleared: One-way Transfer Only.

5 Click OK.

Updating backup folders

You can also use SmartXchange to simplify the process of updating a folder to which you have backed up a set of files.

To use SmartXchange to update a backup folder:

1 On the *left* side of the target (backup) window, click the folder you want to update.

2 On the *left* side of the source window, click the folder containing the files you want to back up again.

3 On the SyncTools menu, click SmartXchange.

4 Verify that the source and target are correct. Change the target if necessary.

• If you want to include subfolders in the exchange, check this box: Include Subfolders.

• If you want to update files—and not add new ones—check this box: Transfer Only If Files Are Already on Target. If you want the folders to be identical, the box must be cleared.

5 Make sure that this box is checked: One-way Transfer Only.

6 Click OK.

Replacing one folder with another: Clone Folder

Clone Folder replicates one folder onto another by adding, deleting, and updating files on the target until they match those on the source. After opening the target and the source folders, click Clone Folder on the SyncTools menu. Then choose whether to include or exclude subfolders.
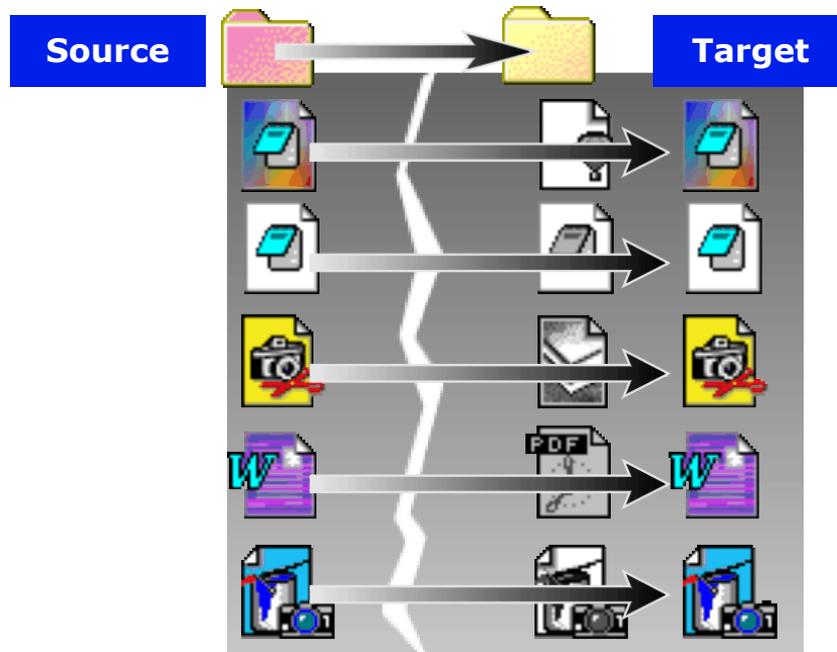
Use Clone Folder to replace the contents of one folder (the target) with the contents of another (the source).

Clone Folder has the effect of erasing the target and copying the entire source.

CAUTION This is the ONLY File Transfer function of LapLink Gold Corporate that allows data deletion. Since this function cannot be undone, consider carefully before using a Clone folder.

Clone Folder replaces one folder (the target) with another (the source). The effect is the same as deleting everything on the target and copying everything from the source.

Cloning a folder adds and updates target files until they are identical to those on the source. In addition, it deletes any target file that has no counterpart on the source.

NOTE With Clone Folder, you determine the items to be copied by selecting the folder containing the items, not by selecting the items themselves.

It's the deletion of files that makes Clone Folder useful, particularly when you are maintaining a backup folder. With the usual copy operation, the backup folder over time accumulates all the files you have deleted from the source. With Clone Folder, those unwanted files are removed with each backup.

CAUTION Use this command with caution. Any subfolder or file not on the source will be deleted from the target.

To replace one folder with another:

1 On the *left* side of the *target* window, click the folder whose contents you want to replace.

2 On the *left* side of the *source* window, click the folder whose contents you want to reproduce.

3 With the source window still active, click Clone Folder on the SyncTools menu.

4 Verify that the source and target are correct. Change the target if necessary.

5 If you want to reproduce subfolders within the selected folder, check this box: Include Subfolders.

6 Click OK.

Speeding file transfers with SpeedSync and compression

When you are updating files, SpeedSync can shorten transfer times by sending only the parts of the files that have changed since the last update. SpeedSync is most effective when you update files that have not been changed extensively since the last update. Compression, on the other hand, speeds file transfers by "shrinking" files before they are sent and restoring them to their original sizes afterward. Compression is most effective with large files that have not been compressed already. Though both features are in effect by default, there may be circumstances in which you might improve transfer times by disabling them.

With SpeedSync

Source and target files are compared to locate changes in the source file.

Only the changes are copied, usually resulting in faster transfers.

Without SpeedSync

Source and target files are not compared for changes.

Entire files are copied, often resulting in longer transfer times.
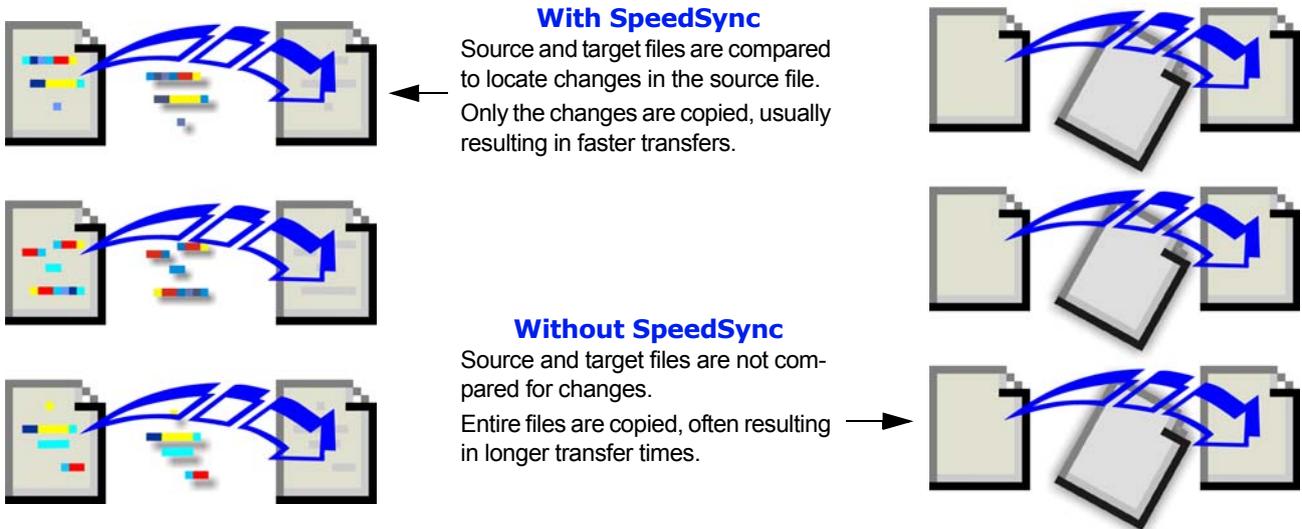
Using SpeedSync

SpeedSync is designed to cut transfer times when you are updating files. It has no effect when you are copying files that were not on the target before you started copying.

Before a file is copied, SpeedSync searches the target for a file with the same name. If none is found, the entire file is copied. Otherwise, the two files are compared to locate changes in the source file. Only the changes located in the source file are copied.

The time necessary to locate changes is usually more than offset by the smaller amount of data that has to be transferred. The reverse may be true in a few circumstances,

e.g.; when you are updating many small files over a fast connection.

NOTE Whether SpeedSync and compression are used in file transfers depends entirely on the settings of the guest (the computer that opens the connection).

CAUTION SpeedSync is a tool for decreasing transfer times. It does *not* merge the contents of two files. The contents of one file will always replace the contents of the other. If you need to merge databases, schedules, or other shared files, see the documentation for the program in which they were created.

To disable SpeedSync:

1 On the Options menu, click File Transfer Options.

2 On the Performance tab, clear this box: Use SpeedSync on All File Transfers.

TIP To review the effect of SpeedSync on your past file transfers, open at least one File Transfer window. Then

click SpeedSync Statistics on the SyncTools menu. You see the statistics for your most recent transfer as well as combined statistics for earlier transfers.

Using compression

Because compression usually results in the transfer of less data, it is particularly useful when you transfer large files by modem: the larger the files, the greater the savings.

Since compression would actually slow the transfer of files that have already been compressed (or zipped by another file-compression program), LapLink automatically turns this feature off while it is transferring such files.

If you find a situation in which compression does not speed up file transfer, you can disable it: On the Options menu, click File Transfer Options. On the Performance tab, clear this box: Use Compression When Transferring Files.

Resuming an interrupted file transfer

If you lose your connection to another computer while transferring files, File Transfer Recovery lets you connect again and continue the transfer where it left off. Any file—or portion of a file—copied before the interruption is skipped; only the untransmitted data is copied.
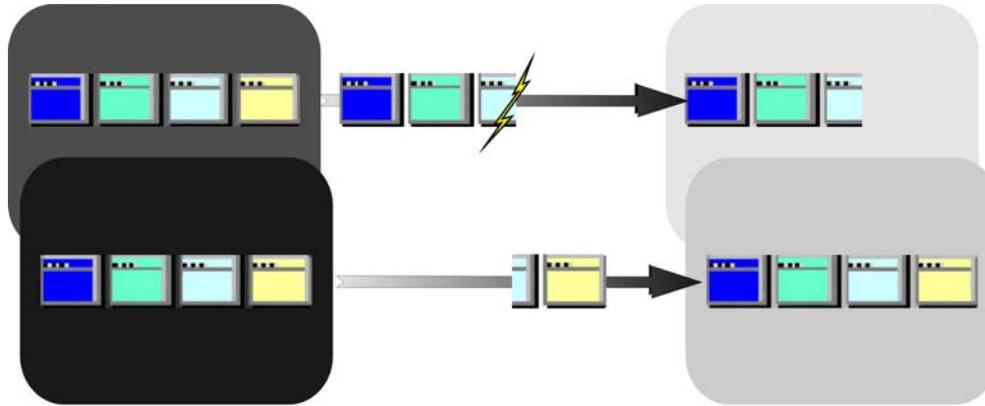
If you lose a connection while transferring a file, the data transferred at the point of interruption is stored on the target computer.

When you reconnect and resume the transfer, the missing part of the file—not the entire file—is copied, along with the remaining files.

File Transfer Recovery lets you continue a file transfer even when you have lost a connection. Instead of starting the transfer at the beginning, File Transfer Recovery resumes at the point where the connection was lost:

- Only the missing part of the interrupted file is copied.
- Files successfully copied before the interruption are not copied again.

TIP File Transfer Recovery is particularly useful when you copy large files over an unreliable modem connection.

To resume an interrupted file transfer:

- If you were running an Xchange Agent when the interruption occurred, run the agent again.
- If you were transferring from File Transfer windows:
  1 Re-establish the connection.
  2 *Select the same files and folders.*
  3 Begin the transfer again.

File Transfer Recovery and other options

Three options must be enabled for File Transfer Recovery to work effectively. All three appear in File Transfer Options (Options menu) and are enabled by default.

Enable File Transfer Recovery Located on the Copy/Move tab, this box must be checked for File Transfer Recovery to occur at all.

Use SpeedSync on All File Transfers Located on the Performance tab, this box must be checked to allow the transfer to resume with the missing part of a file. When it is cleared, the entire file must be sent again.

Transfer Only If Files Are Newer Located on the Filter tab, this box must be checked so that files successfully copied before the interruption are not copied again.

When a transfer is interrupted, File Transfer Recovery creates a file in the target folder containing whatever part of the file has been transferred successfully. The file is named !LAPLINK.TSI.

When File Transfer Recovery resumes a transfer, this file is compared with the source file to determine what's missing. Once the file is complete, !LAPLINK.TSI is given its original name. (If you do not use File Transfer Recovery to resume the transfer, the file remains in the folder and can be safely-deleted.

7 Automating file synchronization with Xchange Agent

Using Xchange Agent—Overview

Xchange Agent takes the function of SmartXchange to a higher level, by automating synchronization—the process of keeping your files updated. To set up an Xchange Agent, open a connection to another computer, choose the pairs of folders to be synchronized; then preview and perform the synchronization. After working on the files on either or both of the computers, run the saved agent to reconnect and update the older copies of the files automatically. You can run an agent by double-clicking its shortcut icon or by scheduling it to run unattended.

In the end, files in the synchronized folders are identical.
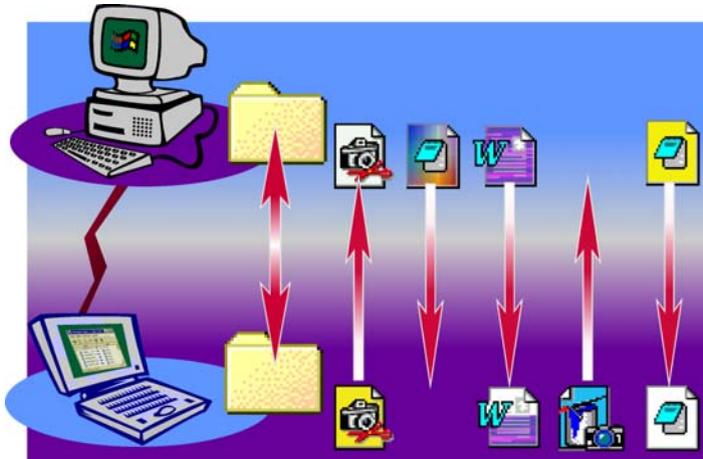
Xchange Agent automatically copies the newer versions of all files regardless of which computer they are on. Files that have no match are copied onto the computer that lacks them.

Xchange Agent simplifies the repetitive process of keeping two computers—often a laptop and a desktop—in sync. Whether your most recent work appears on one or both of the computers, Xchange Agent transfers files so that both have only the newer copies of your files.

Xchange Agent automates the process of opening connections, selecting the pairs of folders to be synchronized, set-

ting the appropriate options, initiating the exchange, and disconnecting. To prevent unwanted results, you can preview beforehand.

NOTE Xchange Agent is also useful for local synchronizations, as when you keep files on your desktop in sync with files on a local network.

Creating an Xchange Agent

Open a LapLink connection—by modem, network, or any other means—to the computer with which you want to exchange files.

Then use the Xchange Agent wizard to create your own Xchange Agent:

- From the hierarchy of folders displayed for each computer, choose the pair of folders—one folder on each computer—you want to synchronize. Choose as many pairs as you want.
- Name your Xchange Agent file and save it.
- Preview the agent you just created, making sure that you set it up as intended.

Then run the agent to make the files in each pair of folders identical.

NOTE Xchange Agent automatically copies the newer versions of all the files regardless of which computer they are on. Files that have no match are copied onto the computer that lacks them.

Previewing an Xchange Agent

To prevent unintended consequences, you can preview an agent before synchronizing. The preview screen shows pairs of folders and files, with arrows to indicate the direction in which files will be copied when the agent is run.

In a preview, you can customize the agent by excluding pairs of files (and entire folders) from the current synchronization, leaving the files as they are on each computer.

TIP By default, agents are previewed before being run. To bypass preview, click Properties on the File menu and click an option on the Run Options tab. For more information see .

Running an Xchange Agent

There are several ways to run an Xchange Agent:

- Double-click its shortcut icon on the desktop.
- Schedule the agent to run unattended.
- Start LapLink and run the agent.
- Double-click the agent file in Windows Explorer.

CAUTION Xchange Agent exchanges files between folders. It does *not* merge the contents of files. To merge databases and other shared files, use the program in which the files were created.

Beyond the basics

Xchange Agent offers various options for customizing each synchronization. For example, you can:

- Change the direction of copy: instead of a two-way exchange of files, copy files in one direction only, from one computer to the other.
- Include or exclude (filter) files according to type or name.
- Include or exclude subfolders within synchronized folders.

Creating an Xchange Agent

Once you connect to another computer, you create an Xchange Agent by selecting the pairs of folders—one folder on each computer—which you want to keep synchronized. You can select the pairs from a window displaying the folders on both computers, or you can drag folders from File Transfer windows onto the Xchange Agent window. In either case, you can preview the agent to ensure that you have set up the synchronizations as intended.
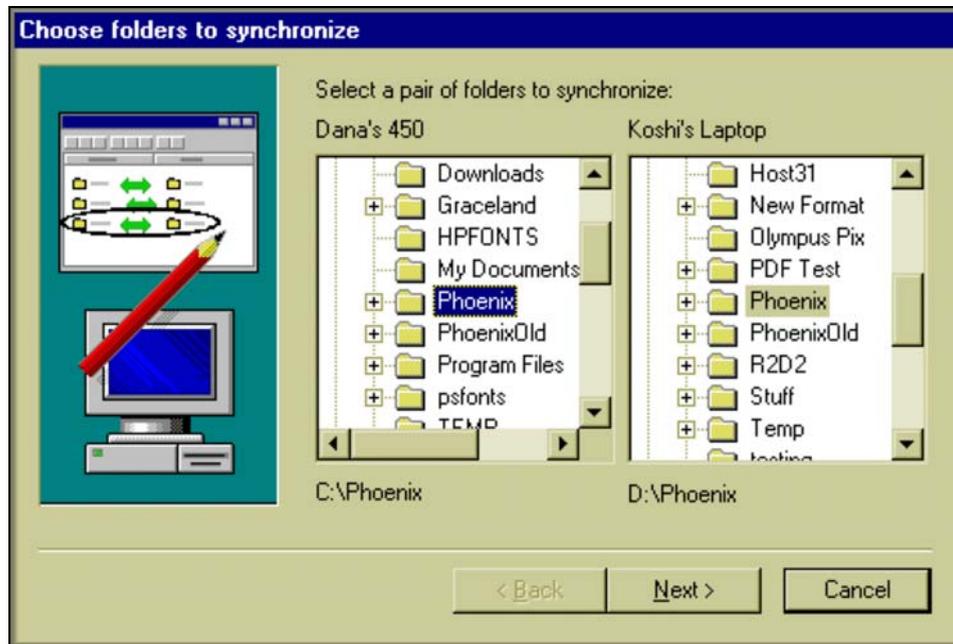
To create an Xchange Agent:

1 Start LapLink and open a connection with the computer with which you want to synchronize files.

   For a local synchronization, simply start LapLink.

2 On the SyncTools menu, click either of these:

   • Xchange Agent wizard
   • New Xchange Agent

Using the Xchange Agent wizard

The wizard guides you through the process of selecting pairs of folders to be synchronized. After naming and saving the agent file, you can preview the agent and change its settings.

To make the files in each folder pair identical, click the Run button on the toolbar.

NOTE There are two "modes" in Xchange Agent: edit and preview. Certain operations are available in one mode and not the other. To save an agent, for example, you must be in edit mode. To change to edit mode from preview mode, click the Close Preview button on the toolbar.

Using New Xchange Agent

After choosing New Xchange Agent from the SyncTools menu, you can select the pairs of folders to be synchronized in two ways:

- On the Edit menu, click Add Folder Pair. After specifying whether the synchronization is Local-Local or Local-

Remote, click a folder on each side of the window. Repeat the procedure to add other folder pairs.

- Drag folders from File Transfer windows onto the Xchange Agent window. Drag a folder first from one File Transfer window, then from the other one. Repeat the procedure to add other folder pairs.

Once you have selected the pairs to be synchronized, you can do any of the following:

- Preview the agent: click the Preview button on the toolbar.

- Name and save the agent file: On the File menu, click Save. In the File Name box, type a name, and click OK.

- Run the agent to make the files in each folder pair identical: click the Run button on the toolbar.

TIP Xchange Agent files are given the .LLX extension. In Windows 95 and Windows 98, Windows ME, XP, 2000 and 2003, they are stored in the My Documents folder. In Windows NT, they are stored in the \Profiles*your-name*\Personal folder within the Windows folder (where *yourname* is your Windows NT logon name).

Previewing and running an Xchange Agent

Previewing an Xchange Agent lets you see exactly which folders will be synchronized and which files will be overwritten. It also lets you skip pairs of folders and files and resolve conflicts. Unless you specify otherwise, you preview each agent before you run it. You can run an agent from the Windows desktop, from within LapLink, or you can schedule it to run in your absence.
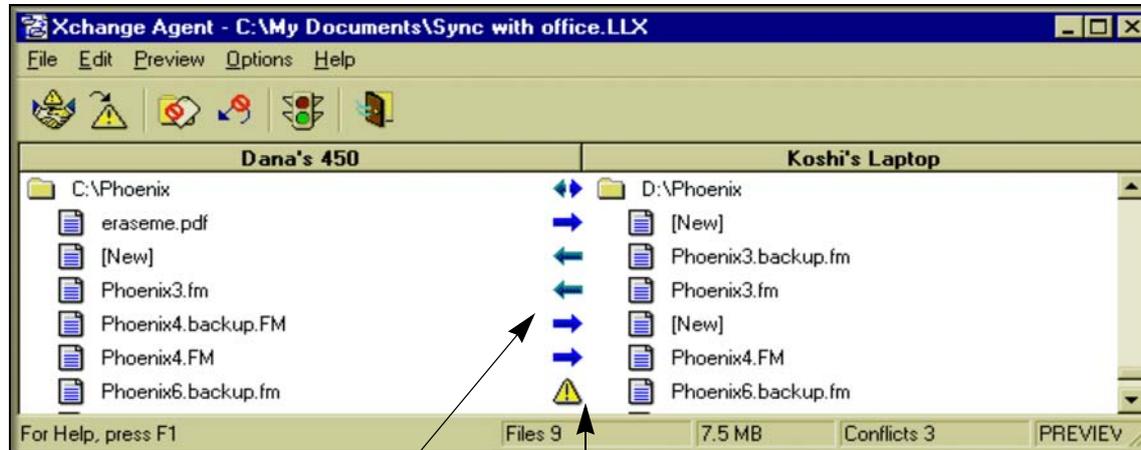
While previewing an Xchange Agent, you can tell the direction of copy from the arrows.

A special icon appears when both files have been modified since a previous synchronization. You can specify how these "conflicts" are handled.

Previewing

By default, a preview appears whenever you run Xchange Agents. You can also open an agent and preview it.

NOTE By default, only agents that you schedule to run unattended will proceed without a preview. To set up agents to run without a preview, see page 129.

To open and preview an Xchange Agent:

1 In LapLink, click Open Xchange Agent on the Sync-Tools menu. (In Xchange Agent, click Open Xchange

Agent on the File menu.) Then click the agent file and click Open.

2 Click the Preview button on the toolbar.

While previewing an agent you can do any of the following:

- **Select files or folders to be omitted from the current synchronization only**   Click a pair and click the Skip Pair button on the toolbar. Skipping a folder skips all the files and subfolders it contains.

- **Put skipped pairs back into a synchronization**   Click a skipped pair and then click the Undo Skip button on the toolbar.

- **Resolve conflicts**   Click a pair showing a conflict icon, click the Resolve Conflict button on the toolbar, and specify how you want the conflict resolved. For more information about resolving conflicts, see page 126.

NOTE In a preview, arrows indicate the direction in which files will be copied, and thus which files will be overwritten. Special icons indicate conflicts between files.

CAUTION Once you have resolved conflicts or marked pairs to be skipped, run the agent *before closing the preview.* Your modifications will be lost otherwise.

TIP   To select every pair of folders and files in the agent, click Select All on the Edit menu.

TIP   To locate a pair with a conflict, click the Next Conflict button on the toolbar.

To close a preview:

- Click the Close Preview button on the toolbar. You are now in edit mode.

TIP   While in edit mode you can customize an agent in several ways. For more information see page 128.

Running an Xchange Agent

There are several ways to run a saved Xchange Agent:

- Double-click the agent's shortcut icon on the desktop. To create a shortcut icon for an open agent, click Create Desktop Shortcut on the File menu.

- Schedule the agent to run at an appointed time. For more information see page 132.

- Run the agent from within LapLink: Click Run Xchange Agent on the SyncTools menu. Then click the name of the agent file and click Open.

- Run an agent you have opened in Xchange Agent: click the Run button on the toolbar.

- In Windows Explorer, double-click the agent file. By default, agent files have .LLX extensions, and are saved to the 'My Documents' folder.

Once an agent finishes synchronizing files, the connection to the host computer is closed. If LapLink was not running to begin with on the guest computer, it is shut down automatically.

TIP   For a record of your latest synchronizations, refer to the LapLink log file: on the Options menu, click Logging.

Dealing with conflicts

When you are keeping folders on two computers in sync, a conflict occurs when a file has been modified on both computers since the last time you synchronized. You can handle these conflicts when you preview or run the agent, or you can set options to handle them automatically.

```
Resolve File Conflict                                                    ? X

   ⚠    The following files have been changed in both folders.  Choose the way you want Xchange
        Agent to handle the files.  Hint: To copy and keep both files, click either Copy Newer File or
        Copy Older File and rename the copy.

   ┌─Dana's 450──────────────────┐  ┌─Koshi's Laptop────────────────┐    ┌────────┐
   │  File:   Phoenix6.backup.fm  │  │  File:    Phoenix6.backup.fm  │    │   OK   │
   │                              │  │                               │    └────────┘
   │  Date:   4/23/99 3:53:32 PM  │  │  Date:    4/20/99 7:11:20 PM  │    ┌────────┐
   │                              │  │                               │    │  Next  │
   │  Size:   107,520 Bytes       │  │  Size:    106,496 Bytes       │    └────────┘
   └──────────────────────────────┘  └───────────────────────────────┘
                                                                        ┌────────┐
   ┌─Resolution──────────────────────────────────────────────────────┐ │ Cancel │
   │  ⦿ Copy Newer File    ☐ Rename copy  [                        ]  │ └────────┘
   │  ○ Copy Older File    ☐ Rename copy  [                        ]  │ ┌────────┐
   │  ○ Skip this pair. Do not copy either file.                     │ │  Help  │
   └──────────────────────────────────────────────────────────────────┘ └────────┘
```

Conflicts between files

Conflicts occur when you modify a file on both of your computers. Since both files are new, you need to decide how to handle them. These are the choices you can make while previewing or running an Xchange Agent:

• Copy either the older or the newer file to the other folder, replacing the file already in that folder.

• Copy either the older or the newer file to the other folder and give the file a new name. Nothing is replaced.

• Skip the conflict, without copying either file.

When you skip a conflict, you carry it over to future synchronizations. There are now two categories of conflicts:

• **New conflicts**   Files have been changed on both computers since the previous synchronization.

• **Old conflicts**   Conflicts were left unresolved in earlier synchronizations. The two computers now have different versions of the same file, and both are dated prior to the latest synchronization. You can treat these conflicts like new conflicts, or ignore them and let both versions remain.

Changing how all conflicts are handled By default, each conflict is presented for resolution when you run an Xchange Agent. You can change this so that conflicts are handled automatically.

To change how conflicts are handled by an Xchange Agent:

1 Open the Xchange Agent.

2 On the File menu, click Properties.

3 On the Run Options tab, click this option: Run Unattended, without Preview or Confirmations. Then click either of these options:

   • Do Not Copy Either; Keep Both Files

   • Copy the Newer File over the Older

Ignoring old conflicts By default, old and new conflicts are treated alike, according to the settings on the Run Options tab in Properties. For example, if you specify that conflicts are to be displayed every time you run an agent, old conflicts will appear every time you run the agent. The alternative is to exclude old conflicts, regardless of how other conflicts are handled.

NOTE To retain both versions of files in old conflicts, click this option on the Advanced tab in Properties: Exclude Previously Skipped Files.

To exclude old conflicts from synchronizations:

1 Open the Xchange Agent.

2 On the File menu, click Properties.

3 On the Advanced tab, click this option: Exclude Previously Skipped Files.

Other conflicts

You may encounter other kinds of conflicts in these situations:

• When you attempt to copy a file or folder with a long name to a drive that does not accept long names.

• When you attempt to synchronize a file with a folder; this happens only when a file and a folder have exactly the same name.

Long name conflicts If you do not shorten long names, you are given this choice when you run an agent: copy the file and give the copy a short name, or skip the conflict without copying the file.

Conflicts between files and folders If you do not rename the file to avoid the conflict, you are given this choice when you run an agent: copy both the file and folder and give the copies new names, or skip the conflict without copying either.

The best way to handle either of these conflicts is to rename files: shorten the long names or rename the file so that it does not conflict with the name of the folder. True synchronization cannot occur otherwise. If you set an agent to run unattended, for example, neither file in a conflict is copied.

Customizing an Xchange Agent

Instead of a two-way synchronization, you can customize an agent so that files within folder pairs are copied in one direction only, from one computer to the other. Among other modifications, you can create a shortcut icon to run an agent directly from the desktop, run an agent without a preview, and limit synchronizations just to the files that already appear on both computers.

To change the direction of the copy, click one or more of the folders.

Then click either the left or right arrow button to specify the direction.
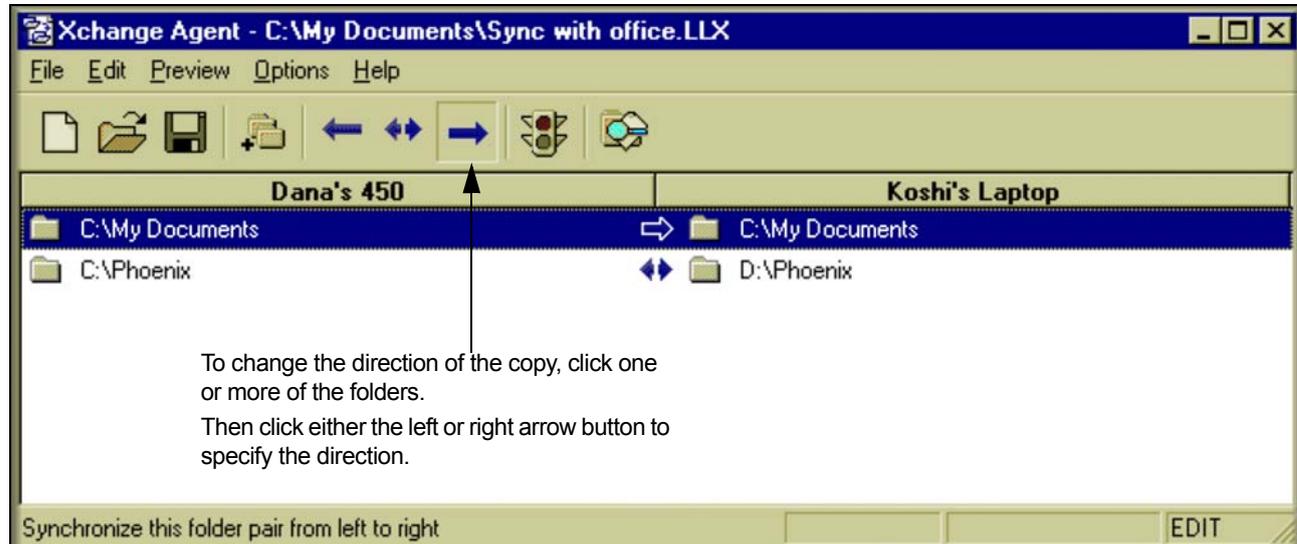
To customize an agent, you must open it from within LapLink or Xchange Agent.

To open an agent:

•   In LapLink, click Open Xchange Agent on the Sync-Tools menu. Click the agent file and then click Open.

    OR

•   In Xchange Agent, click Open Xchange Agent on the File menu. Click the agent file and then click Open.

Changing the direction of copy

When you create an Xchange Agent, all folder pairs are set for a two-way exchange of files. Files are copied in both directions, until the folders on both computers are identical.

You can modify this by specifying that files in a folder pair be copied in one direction only, so that only one folder updates the other.

NOTE To customize an agent, you must be in edit mode. If you are previewing, click the Close Preview button on the toolbar.

To change the direction in which files are copied in a folder pair:

1 Click the folder pair.

 To change the direction of copy for *all* folder pairs, click Select All on the Edit menu.

2 Click an arrow button on the toolbar to change the direction of the copy.

Adding folder pairs

To add a pair of folders to an Xchange Agent:

1 Open a connection with the computer with which you are synchronizing.

2 On the Edit menu, click Add Folder Pair.

3 Click one folder for each computer and then click OK.

NOTE To delete a pair of folders, click the pair and click Delete Pair(s) on the Edit menu. Then click Yes. The folders are deleted from the agent, not from the computers.

Changing how an Xchange Agent is run

There are several ways to customize how an agent is run:

• Create a shortcut icon for running an agent from the desktop: on the File menu, click Create Desktop Shortcut.

• Schedule the agent to run at the time you want: on the File menu, click Schedule. For more information see .

• Set up the agent to run unattended: On the File menu, click Properties. On the Run Options tab, click this option: Run Unattended, without Preview or Confirmations. Then determine how conflicts will be handled by clicking either of these options: Copy the Newer File over the Older or Do Not Copy Either; Keep Both Files.

Changing which files are included in synchronizations

By default, subfolders within folder pairs are included in synchronizations. Read-only files are also included, but hidden files and system files are not. To change these settings, click Properties on the File menu. Then click the File Options tab and change the settings as necessary.

Also on the File Options tab, you can set an option to limit synchronizations by exchanging only files that already appear on both computers. To exclude files that have been added to one computer and not the other, check this box: Include Files Only If They Are Present in Both Folders.

NOTE Filters offer another way of determining which files are included in synchronizations. For more information, see .

TIP Instead of changing the various options every time you create a new agent, you can set default options to apply to any agents you create in the future. These defaults will take effect in new agents unless you specify otherwise in Properties. To change the defaults, click Properties for New Agents on the Options menu.

Using filters to include or exclude files

Using preset filters or filters you create yourself, you can limit synchronizations by including only certain files or types of files. Or you can use the same filters to exclude files and file types.
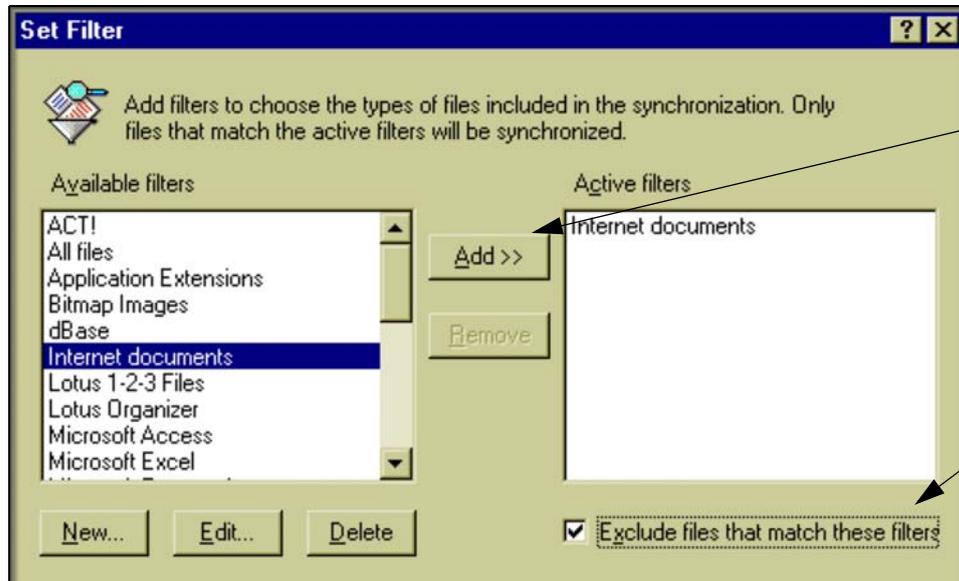
Click a filter in the list of available filters. Then click the Add button.

By default, filters limit synchronization to files that match the filters.

If you prefer, you can use filters to *exclude* matching files—and synchronize the rest.

Xchange Agent includes filters for some of the most common types of files, including Microsoft Office file types, Lotus 1-2-3, and dBase. File types are defined by one or more extensions. Word files, for example, are defined by the extensions .DOC and .DOT.

You can also create your own filters for different file types—or for specific files.

You can use filters to synchronize only the files matching the filters. Or you can exclude the files matching the filters and synchronize the rest of the files.

To filter files by type using the preset filters:

1 Click a folder pair, and then click Set Filter on the Edit menu.

   To filter all folder pairs, click Select All on the Edit menu.

2 In the list of available filters, click a filter and then click the Add button. Repeat the process to add other filters.

3 To use the filters to exclude—not include—file types, check this box: Exclude Files That Match These Filters.

4 Click OK.

To create and apply your own filter:

1 Click a folder pair and then click Set Filter on the Edit menu.

2 Under the list of available filters, click the New button.

3 In the Filter Name box, type a description for the filter.

4 In the Pattern(s) box, type one or more file extensions or file names, using a semicolon (;) to separate them.

To specify file types, use extensions preceded by asterisks: `*.png;*.jpg` and so on. To specify certain files, type their entire names:
`annual.xls;march.xls;april.xls` and so on.

5 Click OK.

Your filter now appears in the list of available filters.

6 Click the filter and then click the Add button.

7 To use the filters to exclude—not include—file types, check this box: Exclude Files That Match These Filters.

To remove the effects of a filter:

1 Click the filter in the list of active filters.

2 Click the Remove button.

Modifying a filter

You can modify any of the filters appearing in the list of available filters. To apply the modifications, you must add the filter to the list of active filters, even if the filter already appears in that list.

To edit and apply a filter:

1 Click the filter in the list of available filters.

2 Click the Edit button.

3 Change the Filter Name or Pattern(s) as necessary and then click OK.

4 In the list of available filters, click the filter then click the Add button.

TIP   To delete an available filter, click it and then click the Delete button.

Scheduling an Xchange Agent to run automatically

Y̲ou can schedule an Xchange Agent to run at a certain time on the days you specify. Scheduled agents can be configured to run unattended: there is no preview, and conflicts are handled automatically. Xchange agents can be scheduled using the LapLink Schedule Wizard. To run the agent on schedule, simply leave the scheduler running on the guest computer..

You can schedule an Xchange Agent to run unattended.

When the scheduled time comes, LapLink starts, the connection is opened, files are synchronized, the connection is closed, and LapLink shuts down.

You can set up an Xchange Agent to run at a particular time on one of these schedules:

- Just once, on a particular date.

- Every day

- On certain days of the week (such as Monday and Friday)

- Once a month on a particular day (such as the first day of each month)

LapLink does not have to be running on the guest for an agent to run as scheduled. When the scheduled time comes, LapLink starts, the connection is opened, files are synchronized, the connection is closed, and LapLink shuts down.

LapLink prepares an Xchange Agent to run on schedule by setting it up in the LapLink scheduler program.

NOTE You can also use the Windows Task Scheduler included in Windows 98, ME, 2000, XP, and 2003. For more information, consult your Windows documentation.

To schedule an Xchange Agent Using the LapLink Scheduler:

1 From within LapLink or Xchange Agent, open the agent.

2 On the File menu, click Schedule.

   The Schedule wizard begins.

3 Give a name to the schedule file.

4 Fill out the schedule by specifying the time and frequency.

TIP   To create another schedule for the same agent, repeat the above procedure and assign a different name to the schedule file.

TIP   To change how an Xchange agent is scheduled, access it throught the LapLink scheduler icon, which appears at the right end of the Windows taskbar.

To run a scheduled agent:

• Leave your Windows operating system and your scheduler running.

Running an agent unattended

A scheduled agent runs without preview, even if you have specified preview on the Run Options tab of Properties.

When conflicts are encountered, they are ignored; neither file is copied. If you prefer to have the newer file in each conflict copied over the older one, click Properties on the File menu. On the Run Options tab, click this option: Run Unattended, without Preview or Confirmations. Then click this option: Copy the Newer File over the Older.[1]

TIP   To ensure that an agent runs and synchronizes as scheduled, the agent should originally be created while connected to the host via an Address Book entry. This stores the log-in name and password required by the remote computer to open the connection.

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1 For more information about resolving conflicts, see page 126.

8 Using Print Redirection

Using Print Redirection—Overview

There are two ways to print over a LapLink connection. While controlling a host computer, you can print from that computer directly to your local printer. Or reverse direction and print directly from your local computer to a host printer. Either way, you can use Print Redirection to send a document over LapLink to be printed at the opposite end of the connection.

Once you have opened a LapLink connection, you can use Print Redirection to send a document from the computer at either end of the connection to a printer at the other end.

There are two ways to use Print Redirection over a LapLink connection:

• **Print from remote to local** While using Remote Control to view and operate a hostcomputer, you can send a document from that computer to a printer at your location. For example, you can prepare a document on your office computer from home and print the document on your home printer.

• **Print from local to remote** When connected to a LapLink host computer, you can print a document from your computer to a printer at the remote location. For example, after working on a report at home or on the road, you can connect to your office computer and print the report to a high-quality laser printer in your office.

Without Print Redirection, you'd have to transfer the document to the other computer and then use Remote Control to run a program on the remote computer and print the document.

Printing a document over a LapLink connection is much like printing it on a local printer: In the program in which you have prepared the document, choose the standard Print command. Normally you would then choose a printer close at hand. In Print Redirection, however, you choose a printer at the opposite end of the connection from the document.[1]

When printing from remote to local, use Remote Control to choose Print on the remote computer; then choose a printer attached to your local computer.

When printing from local to remote, choose Print on your local computer; then choose a printer attached to the computer at the other end of the LapLink connection.

Preparing for Print Redirection

To print documents from a computer to a printer at the other end of a LapLink connection, you need to set up the destination printer on that computer, using the exact same driver. If you want to print reports on the office printer while at home, for example, set up the office printer on your home computer.[2]

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1 For detailed instructions on printing over a LapLink connection, see page 138.

2 For detailed instructions on setting up a printer for Print Redirection, see page 140.

You can set up a printer for Print Redirection during LapLink Setup or afterward, using Print Redirection options in LapLink.

Requirements for Print Redirection

There are three requirements for using Print Redirection:

- You must connect to another version of LapLink that supports Print Redirection.

- The default security setup on the other computer must be changed to allow Print Redirection.

- Both LapLink computers must have the same printer driver (software) installed.

Printing over a LapLink connection

To print over a LapLink connection, choose the standard Print command in any Windows program and then choose a printer set up especially to receive print jobs from remote computers. The document is then transmitted over the LapLink connection to a printer at the other end.

Print from a Windows program as you normally would, using the Print command.

Then choose the printer you set up for Print Redirection.
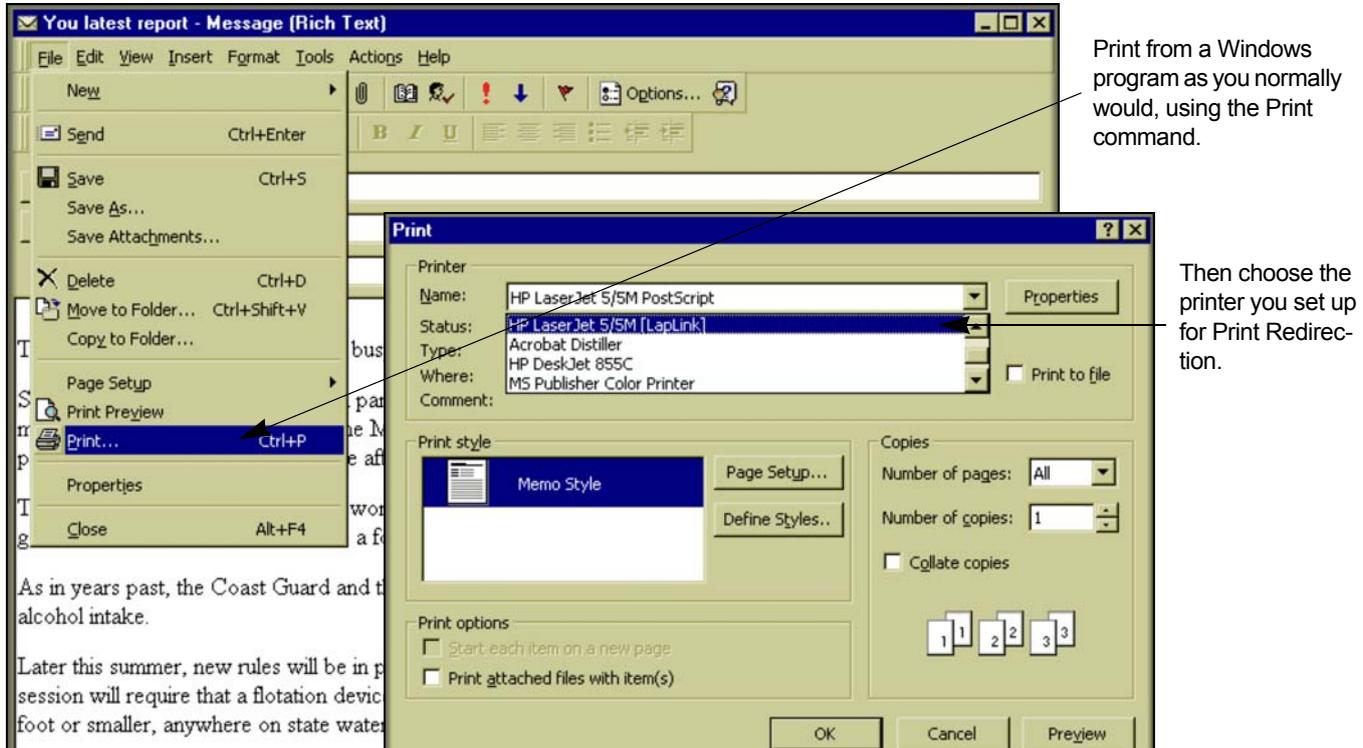
Printing over a LapLink connection is much like printing to a local printer. You simply choose a different printer—one that has been installed especially to print over LapLink.

When printing from remote to local, choose a local printer from the remote computer using Remote Control. When printing from local to remote, choose a remote printer from the local computer.

To print a document over a LapLink connection:

1 Open a LapLink connection to the remote computer.

- To print from remote to local, include Remote Control in the services you open.

- To print from local to remote, open Print Redirection or any of the other services.

2 Open a word processor, spreadsheet, or other program and prepare the document for printing.

3 Use the standard Print command for your program and choose the printer you set up just for Print Redirection. (It is typically a printer with [LapLink] at the end of its name.)

The Print Redirection icon on the LapLink status bar animates as the document is sent over a LapLink connection to the destination printer.

When the animation stops, the document has arrived at the other computer. You can then close LapLink if you want.

TIP You can monitor the status of the printing document after it's been sent over a LapLink connection. On the computer to which the printer is attached, click the Windows Start button, point to Settings, and click Printers. Then double-click the printer icon.

NOTE You can use Print Redirection over a LapLink connection even when it is not one of the services currently open. Print Redirection becomes available on demand.

. . . Printing over a LapLink connection

Choosing among several printers

Normally, Print Redirection sends documents to the printer that has been set up as the default printer on the connected computer. If you send a print job from home to the office, for example, the printer designated as the default on the office computer automatically gets the job. (If there is only one printer set up on a computer, that printer is always used.)

If you want to use a printer other than the default, you need to set up LapLink to prompt you with a list of available printers whenever you print. Change this setting on the computer the printers are attached to, *not* the computer with the document.

TIP If you're not in front of that computer, you can still change this setting by remote controlling the computer.

To set up LapLink to prompt with a list of printers:

1 On the computer the printers are attached to, click Print Redirection Options on the Options menu.

2 Click Prompt with a List of Available Printers.

Whenever you send a document to that computer to be printed, you are prompted with a list of all the printers set up on that computer.

Setting up printers for Print Redirection

To print documents from a computer to a printer at the other end of a LapLink connection, you need to set up the destination printer on that computer. If you do not set it up while installing LapLink, you can set it up later, using the Print Redirection Options in LapLink. For best results, set up a printer identical to the one you will be printing to at the other end of the connection.

To set up a new printer, click the Setup button in the Print Redirection Options dialog box.

Choose the printer from the list.

If your printer arrived with a setup disk, click Have Disk.

Print Redirection Options

Set up printers for Print Redirection, and specify whether to prompt with a list of printers when a document is sent to the computer.

Printer setup

To print documents from this computer to a printer on another computer, you need to set up that printer on this computer. Click the Setup button to add a new destination printer.

Setup...

Multiple printer options

When a document is is sent to this computer to be printed:

- Print the document on the default printer
- Prompt with a list of available printers

If there is only one printer on this computer, don't change this option; documents are automatically sent to the default printer.

Print Redirection Setup Wizard

Select the manufacturer and model of the destination printer (the printer you want to print to on the other computer).

If your printer is not listed, and you have a disk containing drivers for that printer, click the Have Disk button. Otherwise, choose a printer compatible with your printer.

Manufacturers:
GCC
Generic
Gestetner
Hermes
HP
IBM
Kodak
Kyocera
LaserMaster

Printers:
HP LaserJet 5L PCL
HP LaserJet 5M
HP LaserJet 5MP
HP LaserJet 5N
HP LaserJet 5P
HP LaserJet 5P/5MP
HP LaserJet 5Si
HP LaserJet 5Si Mopier PS
HP LaserJet 5Si MX

Have Disk...

< Back   Next >   Cancel

Before you can use Print Redirection, you need to add a printer for Print Redirection to the computer you'll be printing from (the location where your documents are kept).

For example, if you're remote controlling your office computer and want to print a document on that computer to your printer at home, you need to set up your home printer on the office computer.

If you want to print a document on your home computer to a high-quality printer at your office, you need to set up that printer on your home computer.

The printer you set up for Print Redirection must match the printer you'll be printing to at the other end of the connection. If the destination printer was originally set up using a manufacturer's installation CD ROM or downloaded driver, use that same installation method for both computers.

CAUTION Using the Printer Redirection wizard in LapLink Gold Corporate will not ensure that both computers are using the same printer drivers. For more information about configuring a printer for LapLink Printer Redirection, see technical document #36 at www.laplink.com/support.

Setting up a printer

You can set up a printer during LapLink Setup or from within LapLink after installation. You will probably need your Windows CD-ROM or the disk that accompanied your printer.

To set up a printer from within LapLink:

1 On the Options menu, click Print Redirection Options.

2 Click the Setup button to start the Print Redirection Setup wizard.

3 Follow the instructions in the wizard.

Once the printer is set up, you can print to it, and your document is sent over your LapLink connection. In order to print, LapLink must be running and connected to the computer you want to print to.

9 Using Text Chat and Voice Chat

Exchanging typed messages using Text Chat

Text Chat lets you exchange typed messages with a person sitting at a remote computer. Used with a service like Remote Control or File Transfer or by itself, Text Chat is useful for exchanging brief messages and sending instructions. However, if you have a microphone, sound card, and speakers, you can use Voice Chat instead.
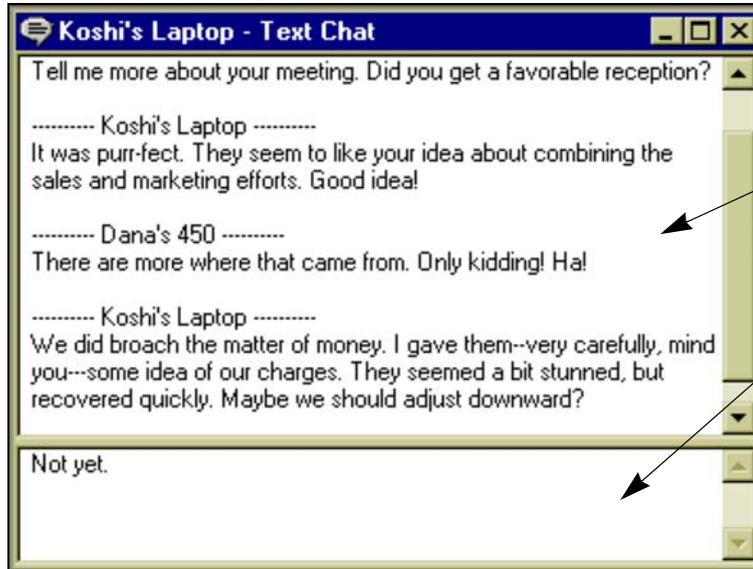
Read messages sent from the remote computer—as well as your own—in the upper part of the Text Chat window.

Type your messages in the lower part. Press ENTER to send.

Opening a Text Chat window

When you connected to the remote computer, you may have opened a Text Chat window. If not, you can open one after you open the connection.

To open a Text Chat window:

• Click the Open Text Chat button on the Shortcut bar. Or click Open Text Chat on the Window menu.

TIP   If you have opened a connection to multiple remote computers, click a window for the desired connection *before* opening Text Chat.

Sending messages

A Text Chat window is divided into two parts:

• The upper part displays the messages you have sent to the remote user as well as those the remote user has

sent to you. Each message is identified by the name of the computer from which it was sent.

- The lower part serves as a note pad on which you write your messages. It clears each time you send a message.

NOTE A Text Chat window pops to the foreground on your screen whenever the remote user sends a message. To keep the Text Chat window from activating automatically, click Text Chat Options on the Options menu. Then clear this option: Restore Text Chat Window Automatically.

To send a message to the remote user:

1 Click the Text Chat window.

2 Type your message.

   Avoid pressing ENTER until your message is complete. To start a new paragraph, press CTRL+ENTER.

3 Press ENTER to send the message.

Pasting text into your Text Chat window

Instead of typing messages while connected, you can prepare them ahead of time and paste them into the Text Chat window as necessary.

To paste text into a Text Chat window:

1 In Notepad or another Windows text editor, select the text and copy it.

2 In LapLink, click the lower part of the Text Chat window.

3 On the Edit menu, click Paste.

NOTE To reverse your latest editing action in the lower part of a Text Chat window, click Undo on the Edit menu.

Copying text from your Text Chat window

You can copy part or all of a Text Chat conversation and paste it into another Windows program.

To copy your Text Chat conversation:

1 In the upper part of the Text Chat window, highlight part of the text, or select the entire conversation by clicking Select All on the Edit menu.

2 On the Edit menu, click Copy.

3 Switch to another Windows program, and paste the text into that program.

TIP As a guest during Remote Control, you can carry on a Text Chat conversation with the host only by viewing the host screen in a window. (In full-screen view, you cannot see your own Text Chat window.) To arrange the Text Chat window beside the Remote Control window, click Tile Side by Side on the Window menu.

Talking to someone using Voice Chat

Voice Chat lets you speak with a person at the other end of a LapLink connection, using the same line that transfers data between the two computers. Both computers must be configured for full duplex if you are to talk as you would on the telephone. If either computer is configured for half duplex, you must wait for the other person to stop talking before you begin.
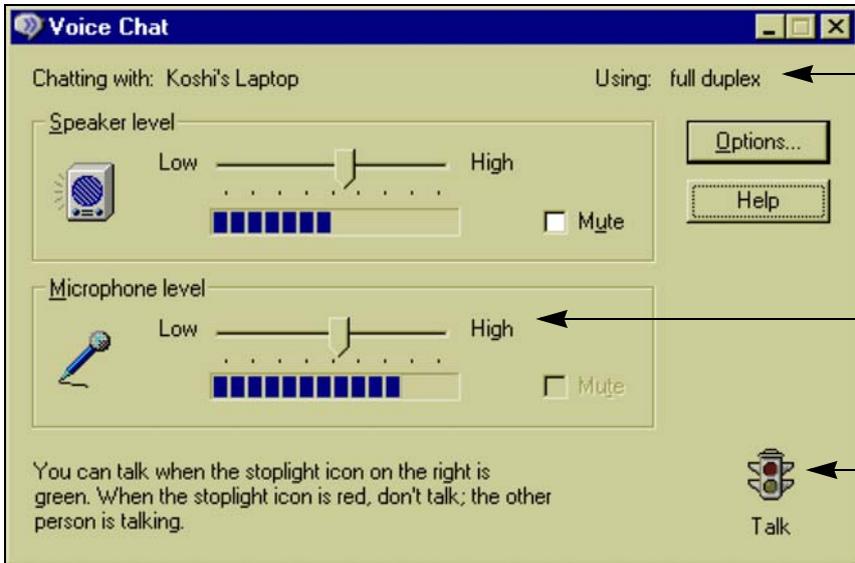
How you talk to the other person in Voice Chat depends on whether the current conversation is using half duplex or full duplex.

You can adjust the volume of the speaker and microphone or mute them entirely.

When you're using half duplex, watch the icon to determine when to talk and when to listen.

Use Voice Chat to talk to someone you're connected to over LapLink while using other LapLink services like File Transfer and Remote Control. To use Voice Chat, you must have a computer that is capable of recording and playing sound.

You may have started Voice Chat when you connected to the remote computer. If not, you can start it *after* you open the connection.

Starting Voice Chat

To start Voice Chat:

1 Click the Open Voice Chat button on the Shortcut bar. Or click Open Voice Chat on the Window menu.

2 The person on the other end of the connection is "called" and asked whether he or she wants to talk with you.

If the Voice Chat connection is accepted, a Voice Chat window opens, and you can begin talking to the other person.

TIP   If you have opened a connection to multiple remote computers, click a window for the desired connection *before* starting Voice Chat.

Talking in Voice Chat

To use Voice Chat, you speak into the microphone and listen through headphones or speakers. If the other person can't hear you very well, increase the microphone level in the Voice Chat window. If the other person's voice is too loud or too soft, change the speaker level.

NOTE Although there are other volume/level controls in Windows, it is recommended that you use the ones in LapLink for best results.

Depending on the configuration of the sound card in both computers, you may be able to talk as you would on a telephone; that is, your voice and the voice of the other user can be transmitted simultaneously. This is known as full duplex.

If you and the other user are not using full duplex, you must talk as you would on a walkie-talkie; that is, you must wait for the other person to finish before you begin. The transmission of just one voice at a time is known as half duplex.

. . . Talking to someone using Voice Chat

Voice Chat conversations are always half duplex unless both sound cards are configured for full duplex. The indicator at the top of the Voice Chat window shows whether your current conversation is half duplex or full duplex.

Voice Chat provides an alternate method you can use to talk using Voice Chat, known as Manual mode; see .

Talking using half duplex

When you are having a half-duplex conversation, refer to the stoplight icon in the lower right corner of the Voice Chat window to know when you can talk. When the light is green or the text says "Talk," you can talk. When the light is red or the text says "Don't Talk," you should wait until the other person has finished talking.

TIP   Saying "over" when you are finished talking may help facilitate conversation.

Notice that the stoplight icon is also available on the LapLink status bar, so you can minimize the Voice Chat window and continue talking.

Configuring your sound card for full duplex

Some sound cards can be reconfigured for full duplex merely by updating to new sound card driver software. Contact your sound card manufacturer to find out whether your sound card is capable of full duplex. Updated sound card drivers are usually available on the manufacturer's website.

Remember that the sound card of the person you're talking to also must be configured as full duplex in order for you to talk in full duplex.

NOTE Over slower connections, you may not be able to use full duplex, because of the lower bandwidth of the connection.

Improving Voice Chat performance

To improve Voice Chat performance, click the Levels tab in the Voice Chat Options dialog box, and then configure the microphone and speaker levels and specify information about your environment.
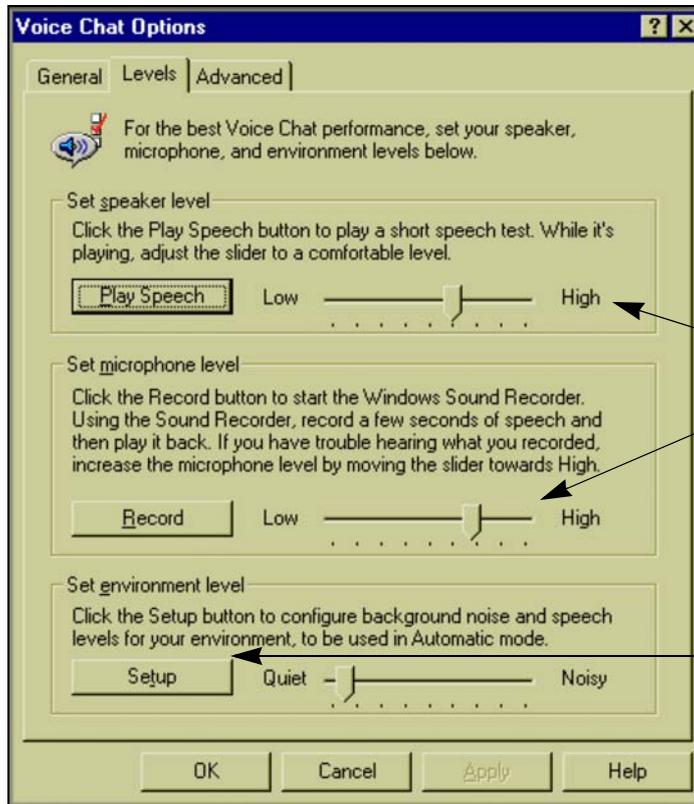
Use the Levels tab of the Voice Chat Options dialog box to configure your speaker, microphone, and environment levels.

For the speaker and microphone levels, click the button, and then adjust the sliders to the desired level.

For the environment level, click the Setup button and follow the instructions.

If you have already used a program that records and plays sound in Windows, you probably do not have to change settings for your speakers and microphone before using Voice Chat. (For exceptions, see online help.)

However, Voice Chat lets you change settings for your speaker, microphone, and environment to improve performance in Voice Chat. It is recommended that you do this once, preferably before you start using Voice Chat.

Setting levels in Voice Chat

The Levels tab on the Voice Chat Options dialog box lets you perform recording and playback tests and measure other speech qualities. Use the Levels tab when you're *not* using Voice Chat, (e.g.;before you begin chat).

To configure levels in Voice Chat:

1 On the Options menu, click Voice Chat Options.

2 Click the Levels tab.

3 Under Set Speaker Level, click the Play Speech button.

   TIP Some sound cards do not allow these settings to be changed using software; in this case, the sliders won't be available.

4 While listening to the speech, move the Speaker Level slider to a comfortable level.

   If you cannot hear the speech, move the slider towards High. If the speech is too loud, move the slider towards Low.

5 Under Set Microphone Level, click the Record button. The Windows Sound Recorder opens.

   TIP If the Sound Recorder is not available, adjust this option while you are using Voice Chat, instead.

6 Use the Sound Recorder to record and play back a few seconds of speech.

7 If you could not hear what you recorded, move the Microphone Level slider towards High, and try using the Sound Recorder again.

8 Under Set Environment Level, click the Setup button. The Environment Setup wizard begins, and you're asked to record a few seconds of background noise and a few seconds of speech.

   Setting the environment level helps avoid transmitting sound that is not speech. It is recommended that you use the Setup button, and not the slider, to adjust this level.

Improving quality over a fast connection

Voice Chat works best over a fast connection. If you use Voice Chat over a network or other fast connection, you might be able to improve the Voice Chat sound quality.

To improve Voice Chat performance over a fast connection:

1 On the Options menu, click Voice Chat Options.

2 On the Advanced tab, change Transmission Quality to Medium or High.

   Be sure to reset this option to Low when you use a modem or other slow connection.

CAUTION When you have a slow connection, using Medium or High may cause problems with your connection.

It is recommended that you set up your environment level every time you change the transmission quality.

Using Manual conversation mode

Use Voice Chat's Manual conversation mode if you're having problems using Voice Chat or you want additional control over when speech is sent over the connection. Manual mode requires that you press a button in order to talk.
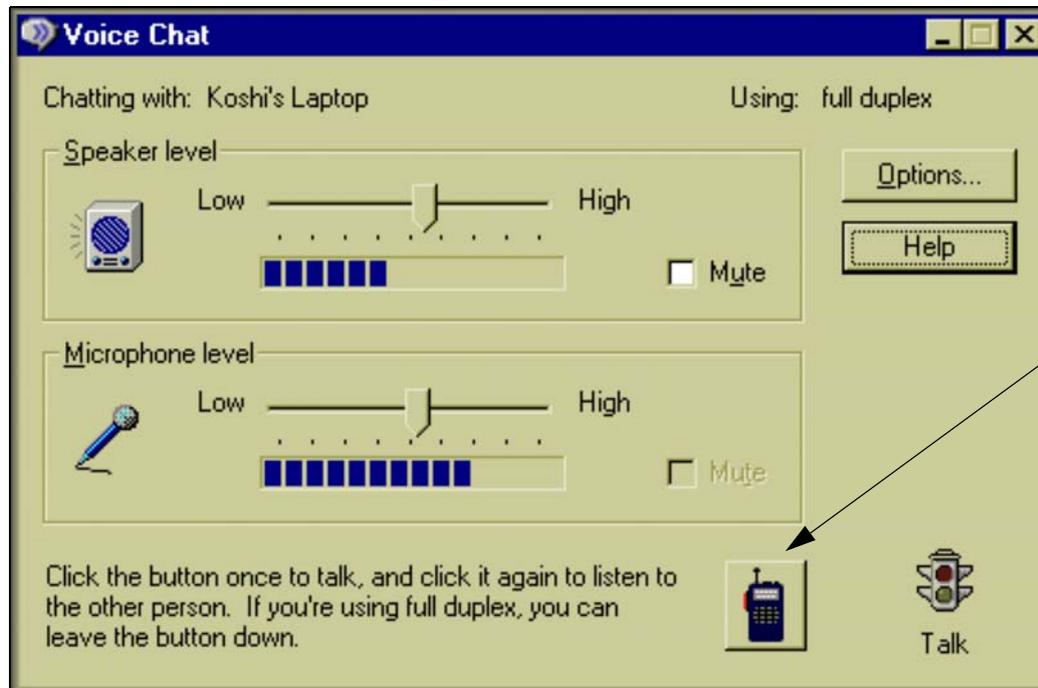
In Manual mode, click the walkie-talkie button in order to talk.

If you are using full duplex, you can leave the button down and still hear the other person. If you are using half duplex, you must release the button to hear the other person.

Voice Chat has two conversation modes: Automatic and Manual.

- Automatic is the normal conversation mode, and allows hands-free operation of Voice Chat. Automatic mode sends speech whenever you talk.

- Manual mode requires you to click a button in order to talk.

In most cases, Automatic mode is recommended.

Use Manual mode if you're having problems using Automatic mode, or if your sound card does not support Automatic mode. If your work environment is very noisy, you might have problems using Automatic mode. You can also use Manual mode to control exactly when speech is sent to the other person.

To change to Manual conversation mode:

1 On the Options menu, click Voice Chat Options.

2 On the Advanced tab, click Manual Mode.

3 Click OK.

The next time you use Voice Chat, the window includes a walkie-talkie button that you use to talk.

Talking in Manual mode

Manual mode works differently depending on whether your conversation is full duplex or half duplex.

- When using half duplex, you click the walkie-talkie button once in order to talk. While you're talking, the other person cannot talk to you (he or she sees a "Don't Talk" icon) until you click the button again to release it. The other person can then talk.

- When using full duplex, you also click the walkie-talkie button once in order to talk, but you don't need to release it to allow the other person to talk, since in full duplex, you can both talk at the same time.

  Therefore, you can just leave the button down until you and the other person are finished talking, since the other person can talk to you when your button is pressed.

10 Troubleshooting

Introduction to troubleshooting

This chapter provides checklists for solving problems and improving performance. These checklists are designed as a quick overview of possible solutions.

For detailed, step-by-step information, consult the troubleshooters in online Help. The troubleshooters are designed to solve problems you may encounter in opening connections and using the services once you have opened connections.

To use an online troubleshooter, open the Troubleshooting book in Help Topics and display one of the topics. Then answer the questions about your problem and try the sug-

gested remedies. In some cases you will find shortcut buttons to dialog boxes; use these buttons to resolve the problem faster.

For further assistance, visit www.laplink.com/support. In addition to the latest technical information, you'll have access to the following support options: FAQ's, Knowledge Base, Web incident (email) support, live chat support, and fee-based telephone support.
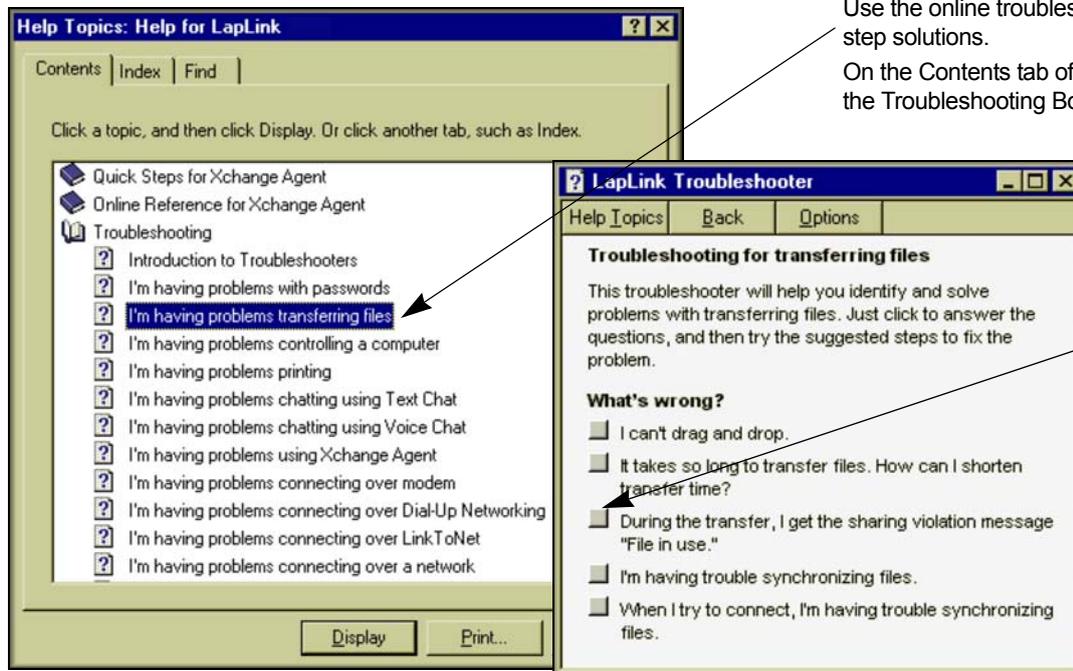
Use the online troubleshooters for step-by-step solutions.

On the Contents tab of Help Topics, open the Troubleshooting Book and display one

Try the solution that fits your problem.

Checklist for modem connections

For Best Results: Use a hardware (controller-based) modem, such as an external (serial) modem. LapLink Gold works best when all the functions of the modem are performed on the modem device itself. Use of software-based (controller-less) modems often result in poorer performance and reliability, and the possibility of incompatibility with LapLink Gold. For a list of modems that are known to be incompatible with LapLink Gold, visit www.laplink.com/support.

Run LapLink on both computers

No connections are possible by modem or any other means unless LapLink is running on both computers. You can connect to a computer running LapLink Gold or another Windows-based version of LapLink.

Ensure that the modem can answer a call or dial out

A modem cannot answer an incoming call unless the Auto Answer option is on. In Port Setup (Options menu), click Windows Modems. Click Configure, and then verify that Enabled under Auto Answer is checked.

Test the modem outside of LapLink Gold

Does the modem work with other applications? Test the modem with other Windows tools, such as dialing your Internet service, or using hyperterminal, to ensure the modem is working properly.

Check the settings for a Windows modem

If your modem does not answer calls or dial after you have enabled it as a Windows modem in LapLink, exit LapLink, and make sure the modem is turned on. In the Windows Control Panel, double-click Modems, click the Diagnostics tab, and click the appropriate port. Click More Info. If the test fails, click the General tab, and remove the modem. Shut down the computer and then restart it. Return to Modems in the Control Panel and reinstall the modem.

Disable error control and data compression on both computers

Some modems communicate better if error control and data compression are disabled on both computers. In Port Setup (Options menu), click Windows Modems, Configure, and then Properties. On the Connection tab, click Advanced. Then clear Use Error Control. Repeat this procedure on the other computer.

Set a longer timeout value

If the computer you are dialing takes a long time to answer and complete the connection, try increasing its modem timeout. In Port Setup (Options menu), click Windows Modems. Click Configure and then Properties. On the Connection tab, type a larger number in this box: Cancel the Call If Not Connected Within.

Lower the modem speed on the computer opening the connection

In Port Setup (Options menu), click Windows Modems. Click Configure and then Properties. On the General tab, click a lower speed in the Maximum Speed box.

Check the security setup on the remote computer

If you are denied the use of Remote Control or one of the other services while connected to another computer, check the security setup on that computer. You can gain access to services through Security (Options menu).

NOTE To let other computers connect to your computer by modem, you must change the security setup established during installation. Remember that passwords are case-sensitive.

Disable call waiting and answering machines

Ensure that the call waiting feature is disabled on the telephone systems at both ends of the connection. Call waiting and answering machines can interfere with modem connections when incoming calls are detected.

Use Dialing Properties to simplify the dialing process.

In the Telephone Number box, type the number EXACTLY as it is to be dialed, including numbers dialed to get an outside line, area codes, country codes, and a "1" when dialing long distance.

Disable other programs that use COM ports while running LapLink

You may experience problems if you use LapLink to connect by modem while running any other programs that monitor serial (COM) ports; modem and fax programs as well as PDA software, typically monitor serial ports for incoming calls or faxes and may cause a modem to disconnect unexpectedly. Disable such programs while using LapLink.

Checklist for Dial-Up Networking connections

Ensure that Dial-Up Networking is installed

You can connect over Dial-Up Networking only if Microsoft Dial-Up Networking has been installed. Dial-Up Networking should already be installed. However, if necessary, you can install this feature from your Windows 95/98/ME CDROM as follows: In the Windows Control Panel, double-click Add/Remove Programs. Click the Windows Setup tab, and double-click Communications. If Dial-Up Networking is checked, it is installed. If it is not checked, click Dial-Up Networking, and then click OK to begin installation.

NOTE For more information about Microsoft Dial-Up Networking, consult Windows Help.

Once connected using Dial-Up Networking, connect to your corporate network

When you connect over Dial-Up Networking in LapLink, you dial in to a remote access server and connect to a network. Then you make LapLink connections in the Connect Over LAN(Network)Connect Over LAN(Network) dialog box. Unless you specify otherwise, the list of available LapLink connections appears automatically as soon as you are connected to the network. If the list of connections does not appear automatically, click the Connect button on the Link-Bar and then click Network.

TIP To connect to another LapLink computer once a Dial-Up Networking connection is established, make sure that this box is checked in the Connect over Dial-Up Networking dialog box: After Connecting to the Network, Choose a LapLink Connection.

Ensure that your computer is set up for network connections

Making connections to other LapLink computers through Dial-Up Networking requires that your computer meet the requirements for network connections in LapLink: a network protocol must be installed, your network ports must be enabled in LapLink, and so on. For more information about network connections, see page 159.

NOTE To let other computers connect to your computer through Dial-Up Networking, you must change the security setup established during installation.

Run LapLink on both computers

No connections are possible by Dial-Up Networking or any other means unless LapLink is running on both computers. You can connect to a computer running LapLink Gold or another Windows-based version of LapLink. Verify that the computer has a network port enabled for the same kind of network connection as your network port.

Use Dialing Properties to simplify the dialing process.

In the Telephone Number box, type the number EXACTLY as it is to be dialed, including numbers dialed to get an outside line, area codes, country codes, and a "1" when dialing long distance.

Disable other programs that use serial (COM) ports while running LapLink

You may experience problems if you use LapLink to connect by modem while running any other programs that monitor serial (COM) ports; modem and fax software, as well as PDA programs, typically monitor serial ports for incoming calls or

faxes and may cause a modem to disconnect unexpectedly. Disable such programs while using LapLink.

Disconnect a Dial-Up Networking connection manually

When connecting by modem, you can instruct LapLink to break a connection after a specified number of minutes in which there is no activity at either end of the connection: Click Connect Options (Options menu). On the Disconnect tab, check the Disconnect Inactive Connections box, and type the number of minutes below.

In most cases, the connection is completely broken after the specified period. With Dial-Up Networking connections, however, you must complete the process: click Disconnect (Connect menu) and then click Disconnect All.

TIP   Consult the network administrator to ensure that the RAS server is accessible and responding to connection requests.

Checklist for network connections

Enable the network port for LapLink connections

Access to a network by e-mail and other programs does not automatically provide network access in LapLink. To connect by network in LapLink, your network port must be enabled—that is, made available for use in LapLink. To enable a network port in LapLink, click Port Setup (Options menu). Click the type of network—either IPX or TCP/IP—in the Ports list. Then check the Enable Port box. If the network is IPX, click Configure, and ensure that Internetwork Name Broadcast is checked.

Run LapLink on both computers

No connections are possible by network or any other means unless LapLink is running on both computers. You can connect to a computer running LapLink Gold or another Windows-based version of LapLink. Verify that the computer has a network port enabled for the same kind of network connection as your network port.

Refresh the list of connections

If LapLink was started on the other computer after you started connecting, you may need to refresh the list of available connections in order to include the computer in the list. Click the Refresh List button, and wait while the list of LapLink computers is updated.

Ensure that the network is installed

LapLink cannot connect by network unless a network protocol—either IPX or TCP/IP—is installed. Network protocols are installed using the Networks option in the Windows Control Panel. See your Windows Help and documentation for information on adding network protocols, or consult your network administrator.

Type the password carefully

In LapLink Gold, passwords are case-sensitive. For more information, see the security chapter.

Type the TCP/IP name or address

If you do not see a computer listed as an available connection over a TCP/IP network, you may have to type the computer's IP address. Click the Connect button on the LinkBar, and then click Network. On the TCP/IP Addresses tab, type the IP address or the Windows computer name in the TCP/IP Name or Address box. (This name usually differs from the name assigned to the computer in LapLink.)

TIP To determine the TCP/IP address for a Windows 95 or Windows 98, or ME computer, click Port Setup (Options menu); click TCP/IP in the Ports list; and then click Configure. The computer's address appears in the IP Address box.

TIP To determine the TCP/IP address for a Windows NT, XP 2000 or 2003 computer, click the Start button, click Run, and then at the command line, type CMD.EXE, and press Enter. Then type `IPCONFIG` and press ENTER. The address appears on the IP Address line.

TIP If you cannot connect after typing a TCP/IP address, disable any firewall software on the host machine.

Check the security setup of the host computer

If you receive a "not authorized" error message, be sure to change the security setting on the host from the default of "Private System". Access security settings from the Options

menu, then choose Security. To learn more about allowing connections, go to chapter "Allowing incoming connections.

IPX connections: change the type of frame on both computers

Some IPX connections work better if the frame type for the IPX connection is preset rather than selected automatically; try setting the frame type to Ethernet 802.2 or Ethernet 802.3. This setting should be changed on both computers making a LapLink connection. Network protocols are installed using the Networks option in the Windows Control Panel. See Windows Help and documentation for information on changing the frame type.

Checklist for Internet connections

The computer you want to connect to must have its Internet address published by an Internet directory, and you must know what the address is

Connect over Internet is designed for connecting to a computer whose Internet address is "published" to the LapLink IILS server. To set up the computer for this kind of connection, click Internet Directory Options (Options menu) and type an e-mail address or other unique identifier to be published as the computer's Internet address. Let other LapLink users connect by sharing the address with them.

TIP Set up Internet Directory Options to have the address published automatically. Or publish the address yourself, when you are online: on the Connect menu, click Publish My Internet Address.

TIP If you are connecting to a computer whose IP address you know, use Connect Over LAN (Network) instead to supply the IP Address.

Both computers must be on the Internet and running LapLink

It doesn't matter how it's done—by dialing in to an ISP or connecting over a high-speed connection—but both computers must be connected to the Internet before they can connect using Connect over Internet. LapLink must be running on both computers.

Enable a TCP/IP port in LapLink

To connect over the Internet in LapLink, a TCP/IP network port must be enabled—that is, made available for use in LapLink. To enable a TCP/IP port in LapLink, click Port Setup (Options menu). Click TCP/IP in the Ports list and then check the Enable Port box.

Check the security setup on the host computer

If you receive a "not authorized" error message, be sure to change the security setting on the host from the default of "Private System". Access security settings from the Options menu, then choose Security. To learn more about allowing connections, go to chapter "Allowing incoming connections.

Internet connections between computers behind firewalls may require special configuration

Without proper configuration, LapLink connections over the Internet may be prevented if either of the computers is behind a firewall or router. This may be a personal router appliance, or a corporate network's firewall.

To facilitate LapLink connections over the Internet, LapLink has registered port 1547 with the Internet Assigned Numbers Authority. This port is used by the host computer. To allow LapLink connections through a firewall, a network administrator should forward port 1547 to the internal (private) IP Address of the LapLink Gold computer behind the firewall or router.

NOTE If you have any questions about your corporate network, consult your network administrator.

Other Tips

Confirm that the host computer is currently published to the ILS Server:

Confirm that both computers have an active connection to the internet.

If the host computer is behind a firewall, there are 3 options to establish a connection.

- LapLink Firewall Service see "Making an Internet connection to a computer behind a firewall".

- Laplink Everywhere. See "Connecting Over the Internet Using Laplink Everywhere

- Configure the firewallor router to allow LapLink connections over CTCP port 1547. For more information, visit www.laplink.com/support.

TIP Do not attempt to connect two computer over the internet through the same shared internet connection. The computers will share the same public IP Address, and will not be able to communicate. If you are testing a connection before travelling, contact LapLink technical support staff to test the connection to the host for you. (Live Chat support is ideal for performing internet connection testing.)

TIP LapLink Everywhere troubleshooting- Ensure that the host is accessible via web browser at www.mylaplink.com.

Checklist for cable connections

Important: Different cable types are supported for different versions of Windows.

Serial cable: All versions of Windows

Parallel cable: Windows 95/98/ME

USB cable: Windows 98, ME, 2000, XP, and 2003.

Ensure that Autoconnect is turned on

Autoconnect opens cable connections for you automatically. To ensure that Autoconnect is in effect, click Connect Options (Options menu). On the Connect tab, verify that this box is checked: Enable Autoconnect. Below the option, verify that the services you want to use are also checked.

TIP If you have trouble maintaining a cable connection, try disabling Autoconnect on one or both of the computers.

Run LapLink on both computers

No connections are possible by cable or any other means unless LapLink is running on both computers. You can connect to a computer running LapLink Gold or another Windows-based version of LapLink.

For USB connections with the Gold USB 1.1 cable or the Iogear Smartlink 2.0 USB cable, the other computer must be running LapLink Gold, version 11.5 or higher.

Check the cable

Make sure that each end of the cable is securely attached to the proper port; check the port labels for proper identification. Check a parallel cable for damaged pins. Try reconnecting the cable to each port or even reversing the cable ends.

TIP Attach a yellow LapLink cable to parallel/LPT (printer) ports. Attach a blue LapLink cable to serial/COM (modem or mouse) ports; connect only one end to each computer. LapLink does not work over most other serial cables or any printer cables. Attach a LapLink USB cable to a USB port at each computer. Do not use a non-LapLink USB cable.

Consult the Windows Device Manager when in doubt about USB or other kinds of ports

If you are not certain whether you have a USB port or another kind of port, check the Windows Device Manager: Right-click My Computer; then click Properties. Look on the Device Manager tab, or in the Device Manager button on the Hardware tab.

The LapLink Gold USB cable should appear in the device manager under the the LapLink Gold USB devices category. (Serial and parallel cables never appear in the Device Manager.)

Enable the port

You cannot connect by cable until a port is enabled—that is, made available specifically to LapLink. To enable a port for cable connections, click Port Setup (Options menu). Click the port you want to enable. Then check the Enable Port box.

TIP If a port is listed as unavailable, quit any program that may be using the port, such as palm software, fax, et cetera. Make sure that the cable is attached to an available port.

TIP Do not install any separate USB drivers for the LapLink Gold USB 1.1 cable, or the Iogear USB 2.0 cable. LapLink Gold has the drivers built-in. If the gold cable has been configured on either computer for use with an older version of LapLink (using USB network drivers), you may experience problems connecting. Contact LapLink technical support for

assistance. Visit www.laplink.com/support for more information.

Serial cable connections: lower the speed of a serial port

In Port Setup (Options menu), click the COM port to which the cable is attached. Click Configure. In the Port Speed box, click 57600. Repeat this procedure on the other computer. If you still can't connect, repeat the procedure, lowering the speed one step at a time until you can connect.

Restart the computer

If all else fails, remove the cable from both computers, and restart the computers. Reattach the cable, and try the connection again.

Improving parallel cable performance in Windows 95 and Windows 98

There are three drivers you can use in LapLink for parallel ports: the LapLink Enhanced driver (the default), the LapLink Standard driver, and a Windows driver. The LapLink Enhanced driver is preferable when you alternate between parallel communications and other types of communications: you can leave the parallel port enabled without experiencing any degradation of performance. The Windows driver, on the other hand, generally provides better performance for parallel connections; use the Windows driver if you intend to use parallel connections exclusively. If you then want to switch to modem or some other type of communication, be sure to disable the parallel port beforehand.

NOTE For maximum performance from an ECP port, use the Windows driver for the parallel port to which the cable is attached.

To change the parallel port driver, click Port Setup (Options menu) and then click the appropriate LPT port. Ensure that the Enable Port box is checked. Click Configure and then click one of these options: Use the Windows Driver, Use the LapLink Enhanced Driver, or Use the LapLink Standard Driver.

Checklist for wireless connections

Make sure you're not trying to connect to a Windows NT, 2000, XP, or Windows 2003 computer

You cannot connect computers using wireless devices when either or both of the computers are running Windows operating systems listed above. Wireless connection in LapLink Gold work in Windows 95, 98 and ME exclusively.

Set up the Windows infrared driver

The Windows infrared driver supports a variety of built-in ports and devices attached to serial ports. When you set up the driver, specify any serial port, from COM1 to COM9, as the redirected port. In LapLink Port Setup (Options menu), enable the redirected port for wireless communications.

NOTE In LapLink, *wireless* refers to short-range connections over infrared or radio devices. Other "wireless" connections are available over wireless LAN adapters (using Connect Over LAN (Network)) and cellular modems (using Connect over Modem).

Enable the wireless port

You cannot connect by wireless until a serial port is enabled for wireless connections in LapLink. In Port Setup (Options menu), click the COM port to which the wireless device is attached. Click Wireless in the Type box, and then check the Enable Port box.

Ensure that Autoconnect is turned on

Autoconnect opens wireless connections for you automatically. To ensure that Autoconnect is in effect, click Connect Options (Options menu), and verify that this box is checked: Enable Autoconnect. Below the option, verify that the services you want to use are also checked.

Run LapLink on both computers

No connections are possible by wireless or any other means unless LapLink is running on both computers. You can connect to a computer running LapLink Gold or another Windows-based version of LapLink.

Check the cable, if any

If you have an external wireless device, make sure that its cable is securely attached to the proper port.

Lower the speed of the ports

If you are using wireless devices without the Windows infrared driver, try lowering the port speeds on both computers. In Port Setup (Options menu), click the COM port to which the wireless device is attached. Click Configure, and then click 57600 in the Port Speed box. Repeat this procedure on the other computer. If you still can't connect, repeat the procedure, lowering the speed one step at a time.

Checklist for CAPI 2.0/ISDN connections

Run CAPI-compatible versions of LapLink on both computers

No connections are possible by CAPI 2.0/ISDN or any other means unless LapLink is running on both computers. Ensure that the version of LapLink running on that computer is compatible with CAPI 2.0/ISDN.

Check the security setup on the remote computer

If you are denied the use of Remote Control or one of the other services while connected to another computer, check the security setup on that computer. You can gain access to services through Security (Options menu).

Ensure that LapLink is set up to answer calls over CAPI 2.0/ISDN

CAPI cannot answer an incoming call unless the Auto Answer option in LapLink is enabled. In Port Setup (Options menu), click CAPI 2.0/ISDN. Click Configure, and then verify that the Enable box under Auto Answer is checked.

If you are using ISDN in North America, avoid using the LapLink CAPI 2.0/ISDN

In North America, ISDN doesn't usually include CAPI 2.0 but you can still use your ISDN device in LapLink. If the device is set up as a Windows (TAPI) modem, you can open a LapLink connection using Connect over Modem or Connect over Dial-Up Networking. Simply ensure that the device is enabled in LapLink Port Setup (Options menu) as a Windows modem.If your ISDN device is set with its own dialer, use the dialer to log on to a network. Then, in LapLink, use Connect Over LAN (Network) to connect to other computers running LapLink on that network.

Close some LapLink services to allow connections over both channels

Normally CAPI 2.0/ISDN hosts on which channel bonding is not enabled can handle incoming connections on both channels. When only one connection is possible, try closing services on that connection.

Checklist for File Transfer

Drop files directly on target folder

The most common mistake in drag and drop is dropping files on the wrong target folder (the folder to receive the files). To help prevent this mistake, open the target folder first; the name of the folder now appears in the title bar. Then open the source folder and select and drag the files until the mouse pointer rests on the open folder and the folder is highlighted. As soon as you release the mouse button, you receive a confirmation dialog box showing, among other things, the target you just dropped on. Check the target, and change it if necessary.

TIP To ensure that files are copied, press CTRL while dragging. To ensure that files are moved, press SHIFT while dragging.

TIP If you are copying an entire folder (rather than files *within* a folder), drop the folder on the target one level higher than where you want the files to appear; this may be another folder or a drive letter. Assume that you want to update your Letters folder on your desktop computer with your Letters folder from your laptop, and the Letters folder appears at the highest level of folders on drive C. Drag the folder from the laptop to the desktop and drop it on drive letter C.

TIP If you have File Transfer difficulties, such as error messages or disconnections, try reducing the amount of data being sent, either by reducing the number of files sent or size of sent files.

CAUTION Do NOT attempt to move the entire contents (root) of a drive. Windows may create hidden files or folders that could be in use and cannot be transferred. Likewise, do not attempt to transfer directories containing the

Windows operating system. LapLink Gold cannot move any data that has been locked or is in use, such as the Windows Registry. If you wish to 'clone' a drive for the purpose of making a bootable operating system on the target drive, use drive imaging software designed for these purposes instead of LapLink Gold.

Use the Copy or Move command

Instead of using drag and drop, use the Copy or Move command. First, click the target folder. After selecting the files to be transferred, click Copy or Move (File menu). Then verify that the source and target are correct.

Make File Transfer available to other computers

If you are denied the use of File Transfer or one of the other services while connected to another computer, check the security setup on that computer. You can gain access to services through Security (Options menu).

Log on to Windows before trying to use File Transfer

As a security measure, LapLink does not allow users to connect to a computer and open File Transfer while the computer is waiting to be logged on to Windows. (When you attempt to open a File Transfer connection to a computer running LapLink and displaying the Windows logon dialog box, you see this message: "Creation of window failed.")

The solution is to open a Remote Control connection first. Log the remote computer on to Windows and then open File Transfer.

NOTE To set up LapLink to run before the Windows logon dialog box appears, click the Options menu and choose Program Options. Choose the Advanced tab, and check

this box: Always Start LapLink before Windows Logon Prompt.

General tips for faster transfers

Follow these suggestions to improve transfer speeds:

- Check the folders and files you have selected for transfer, making sure that you are not including more than necessary. For example, have you selected an entire folder when you want to transfer only a few files within the folder?

- Use SpeedSync to improve file transfer times when updating files, particularly over modems: on the Performance tab of File Transfer Options, make sure that the Use SpeedSync on All File Transfers box is checked.

- Disable any ports that are not in use: in Port Setup (Options menu), click an unused port, and then clear the Enable Port box.

- Close other service windows and any connections to other computers you may have opened in LapLink.

- On laptop computers, disable power management functions. Attach the AC adapter to the computer to ensure steady voltage throughout the transfer.

- Disable screen savers, and close other programs.

- Serial cables transfer at 0.4mb/s, while the LapLink Gold USB cable can transfer at up to 5 mb/s.

Tips for transfers over a serial cable

- Ensure that the serial port is configured for maximum speed: in Port Setup (Options menu), click the appropriate COM port; click Configure; and ensure that Port Speed is set at 115200.

- Change the transfer mode to standard: in Port Setup (Options menu), click the appropriate COM port; click Configure; and click Standard under Transfer Mode.

Tips for transfers over modems

Consult the documentation for your modem and verify that the port speed is set for optimum performance: In Port Setup (Options menu), click Windows Modems. Click Configure, and click the modem you are using. Click Properties. In the Maximum Speed list on the General tab, click the maximum speed your modem can use.

Tips for transfers over a network

- Transfer your files when there is less traffic on the network.

- Ask your system administrator to verify that the network drivers are current.

Tips for SmartXchange

Use SmartXchange to update files in two folders so that the folders share the latest files. Since SmartXchange always overwrites older files, do not use it if you want to *merge* the contents of two files. Use SmartXchange by opening the two folders you want to update; do not select the individual files. After clicking SmartXchange (SyncTools menu), verify that you have opened the right folders. If you do not want to add new files to either folder, check this box: Transfer Only If Files Are Already on Target.

Ensure that you have read access rights to network files you want to copy

If you can locate the files you want to copy but then are denied access when you attempt to copy them, contact the network administrator. You can copy only files to which you have been assigned read access.

Checklist for Xchange Agent

Ensure that LapLink is running on the host computer

LapLink must be running on the remote computer before an agent can connect to it and synchronize files. On the guest computer merely keep Windows running. (LapLink will start automatically when the agent runs.)

Make sure that a scheduler program is running

To schedule Xchange Agents—and have them run on schedule—you must have a supported scheduler program running.

NOTE When LapLink Scheduler is running, a red alarm clock icon appears on the Windows taskbar.

Change an Xchange Agent schedule in your scheduler program

Once you've created an Xchange Agent schedule in LapLink, revise or delete the schedule in the scheduler program itself.

Close an Xchange Agent before it is scheduled to run

An agent cannot run on schedule while it remains open in Xchange Agent.

Create an Address Book entry to meet the security requirements of the remote computer

If the remote computer requires a name and password, create an Address Book entry and include the name and password required by that computer. LapLink can then send this information and connect automatically.

Turn off the LapLink callback feature

If the remote computer requires or requests a callback before opening a modem connection, the agent cannot run. On the remote computer, turn off the callback feature: Click the Security button on the LinkBar. On the Log-in List tab, click the name of the guest computer and then click Edit. Under Modem Callback, click None.

Avoid moving or deleting agent files for which you have created shortcut icons

If you have moved or deleted the Xchange Agent file, the shortcut icon can no longer run the agent. Create the agent again. You can reuse the shortcut icon by saving the new file in the same location, with the same name, as the original file. Or you can create a shortcut icon for the new agent file.

Create a filter to synchronize a single file

Xchange Agent always synchronizes by folder pairs, but you can create a filter so that only one file within a folder pair is synchronized. Open the agent in Xchange Agent and click the folder pair. On the Edit menu, click Set Filter and then click New. After typing a description for the filter, type the complete name of the file, including its extension. (To add more than one file name, type a semicolon and then the next file name.) Click OK. Click the filter's name in the Available Filters list, and then click Add.

TIP Preview the agent to see if the correct files are included in the synchronization.

Use Preview to limit the files to be copied in the current synchronization

While previewing an agent, you can specify that certain pairs of files and folders will be omitted from the current synchronization: Click a pair of files or folders and then click the Skip Pair button on the toolbar. Repeat this procedure for any other pairs you do not want synchronized. Then—before closing Preview or quitting Xchange Agent—run the agent.

TIP You can omit file and folder pairs only from the current synchronization. To remove them from a future synchronization, you must use Preview again.

Use Xchange Agent to overwrite, not merge, files

Xchange Agent overwrites files. Unless you specify otherwise, it copies the newer file to the other computer. It does not merge files. To merge databases and other shared files, use the program in which the files were created.

Checklist for Remote Control

Improve performance from the guest

On the guest, you may be able to speed up Remote Control connections by changing settings in Remote Control Options (Options menu) on your computer. On the Performance tab, click the Best Performance option. (To further customize settings, click the Settings button.) Your view of the host should be updated faster, though you will now be viewing the host screen in black and white, and larger bitmaps will not be displayed.

Control the display properties of the host from the guest

By default, LapLink is configured to speed up Remote Control connections: any wallpaper or screen saver on the host is temporarily disabled, along with certain other visual enhancements. From the guest, you can restore these enhancements to the host screen through settings on your computer. On the Performance tab of Remote Control Options (Options menu), click Best Quality. (To further customize settings, click the Settings button.) Keep in mind that changing these settings may slow Remote Control connections.

Make Remote Control available to other computers

If you are denied the use of Remote Control or one of the other services while connected to another computer, check the security setup on that computer. You can gain access to services through Security (Options menu).

Use the keyboard to view the host screen

If the window in which you are viewing the host screen does not show all of the host screen, you can use your keyboard to view areas beyond the borders of the window: press CTRL+ALT+SHIFT and any of the arrow keys, PAGE UP, PAGE DOWN, HOME, or END.

Use the latest driver for your video adapter

Contact the manufacturer of your video adapter, on its Web site or elsewhere, to verify that you are using the latest driver.

New computers do not necessarily ship with the the most current drivers installed.

Avoid changing the color depth or display properties of a host

From the guest, avoid changing the number of colors displayed on the host while you're connected to it using Remote Control. Also avoid changing the Refresh Frequency and other settings in the host's Display Properties while connected. To safely change these properties, you should be seated at the host and fully informed of the capabilities of its monitor. Incorrect settings can damage a monitor.

Use a special key combination to log on to a Windows NT, Windows 2000, XP or 2003 host

When you restart a Windows NT host, you must press CTRL+ALT+DELETE to log on to Windows again. You can accomplish this from the guest by pressing a special key combination specified on the host. (Pressing CTRL+ALT+DELETE on the guest affects the guest, not the host.) To specify a key combination for use on the guest, start LapLink on the host and click Remote Control Options (Options menu). On the Host tab, type the key combination in this box: Send CTRL+ALT+DELETE to This Computer When a Guest Presses This Key Combination.

TIP The easiest way to send a CTRL+ALT+DEL to the host machine is to:

1 Establish a Remote Control session with the host machine.

2 Click on the Session menu, and select "Send CTRL+ALT+DEL to Host".

Do not install other remote control products and LapLink on the same computer

Because of possible incompatibilities, avoid installing LapLink Gold and another remote control product on the same computer.

Examples include PC Anywhere and Windows Terminal Services.

CAUTIONInstalling LapLink Gold with another remote control application installed may result in a failure to reboot (except in Windows Safe Mode.) For more information on allowing these programs to coexist with LapLink, visit www.laplink.com/support.

Avoid pressing CTRL+ALT+DELETE when viewing a Windows NT, Windows 2000, XP or 2003 host in full-screen Remote Control

Pressing CTRL+ALT+DELETE on a Windows NT computer always displays the Windows Security dialog box on that computer. When you are working in a full-screen Remote Control session, pressing CTRL+ALT+DELETE not only displays the Security dialog box locally but also causes the CTRL and ALT keys to be pressed—but not released—on the host computer. To release these keys and resume normal keyboard operation press CTRL and ALT again.

TIP To have CTRL+ALT+DELETE take effect on a host computer, click Send CTRL+ALT+DELETE to Host on the guest's Session menu.

Keep LapLink running before the Windows NT, Windows 2000, XP or 2003 logon prompt

If you have set up LapLink on the host computer to run before the Windows NT logon dialog box appears, avoid closing LapLink on that computer unless you have administrator rights. If you close LapLink, you will have to restart the computer in order to reset LapLink so that other people can connect. (Restarting LapLink is not sufficient.)

Avoid running a Windows NT, Windows 2000, XP or 2003 host in VGA mode

When a Windows NT computer is running in VGA mode you can make LapLink connections from it to other computers using Remote Control and File Transfer, but the computer cannot serve as a Remote Control host. That is, it cannot be remotely controlled by other computers.

Run DOS in a window on a Windows NT, Windows 2000, XP or 2003 host

You cannot control full-screen DOS programs on a Windows NT host. When you attempt to do so, LapLink minimizes the program and displays a warning message. (To close the DOS program, right-click the icon, and click Close.)

Avoid this problem by setting up the Windows NT host to display DOS programs in a window. If you use a shortcut to a DOS program, for example, right-click the shortcut icon, click Properties, and then click the Options tab. Below Display Options, check Window.

Checklist for Print Redirection

Use the same printer driver on both ends of a connection

For best print results in Print Redirection, both computers should be set up with the exact same printer driver. To add a printer driver, you may a disk from the printer manufacturer, or you may be able to download the latest driver from the-manufacturer's website.

Use the Windows Control Panel to get additional information

If the document you printed is sent over LapLink correctly but does not print, examine the printer queue, accessed by clicking Start, Programs, Printers, to get additional information about why the document didn't print. Make sure the printer is connected correctly and has enough paper, and the printer cartridge is not empty.

When several printers are available, you can set up LapLink to prompt you for the printer to use

Normally, LapLink automatically directs print jobs to the printer currently set up as the default printer at the other end of the connection. When there are several printers available,

however, you may want to use a printer other than the default.

To set up LapLink to allow you to choose among the available printers, click Print Redirection Options (Options menu) on the computer the printers are attached to. Then click Prompt with a List of Available Printers.

When printing from 16-bit programs, use the default printer

Before printing from 16-bit Windows programs (programs written for versions of Windows prior to Windows 95, Windows 98, and Windows NT 4.0), set up the destination printer as the default printer on the computer to which it is attached. When using Print Redirection from the 16-bit Windows program, print to the default printer instead of selecting a printer from the list of available ones.

Some printer drivers do not support Print Redirection

To use Print Redirection you must set up a printer to direct print jobs to a special TSI port instead of the usual parallel port. You cannot use a printer driver that does not allow you to change the port in this way. You may want to contact the printer manufacturer to see if an updated driver is available.

Checklist for Text Chat

Press ENTER to send your message

Type your message in the lower part of the Text Chat window. (In some cases, you may have to click in the lower part of the window before you can begin typing.) To send your message to the remote computer, press ENTER.

TIP To begin a new paragraph, press CTRL+ENTER.

Open a Text Chat window after connecting

If you are connected to more than one computer, be sure to specify which computer you want to use Text Chat with: Click the name of the computer on the Window menu. Then click the Open Text Chat button on the Shortcut bar or Open Text Chat on the Window menu.

Make Text Chat available to other computers

If you are denied the use of Text Chat or one of the other services while connected to another computer, check the security setup on that computer. You can gain access to services through Security (Options menu).

Save your Text Chat conversation from time to time

As a Text Chat conversation grows in length, the most recent messages begin to replace the earliest. This starts to happen when the conversation exceeds 32,000 characters. If you intend to save a lengthy conversation, begin saving be-

fore this limit is reached. To save a conversation, click in the upper part of the Text Chat window. Click Select All (Edit menu), and then click Copy (Edit menu). You can then switch to another Windows program such as Notepad, paste the text, and save it as a file.

Shorten connection time by preparing messages beforehand

Instead of typing text while connected, you can prepare it ahead of time in Notepad or a similar Windows program and send it to a remote computer through Text Chat. In the other application, select the text, and press CTRL+C to copy. In the lower part of the Text Chat window, press CTRL+V to paste. Then press ENTER to send.

Use File Transfer for long messages

Text Chat can send as many as 2,048 characters at once. When you attempt to send a message that exceeds that limit, part of the message will not be transmitted to the other computer. Try sending the message in parts. Or save the message as a file, and send the file using File Transfer. You can still use the Text Chat window to let the remote user know what you're sending and to pass along additional notes.

Checklist for Voice Chat

Use full duplex sound card drivers on both ends of the connection

Voice Chat is easiest to use over a full duplex connection; you can hear and be heard at the same time, as on the telephone.

For full duplex, both ends of the connection must have sound cards with drivers that support full duplex. Contact your sound card manufacturer to determine whether your sound card supports full duplex; and find out whether drivers are available.

When using half duplex, wait for the other person to finish talking

A common problem in half duplex conversations is knowing when to start talking. Use the stoplight icon in LapLink as a guideline for when you can talk and when you can't. In some cases, a verbal signal that you are finished speaking (saying "over," for instance) might be helpful, or it might help to simply pause a few seconds when you are done speaking.

If you're using Manual mode, be sure to release the walkie-talkie button; you might not be able to hear the other person otherwise.

Adjust your microphone to a comfortable level

Many microphones require adjustment in order to send clear speech. Make sure your microphone is placed at a good distance from your mouth—not too far and not too close—and then adjust the microphone level using the Levels tab (Voice Chat Options).

Adjust your speakers or headphones to a comfortable level

Most speakers, and some headphones, have a manual control that you can use to adjust volume. It is recommended that you leave the manual controls at a medium level, and adjust the volume of speakers and headphones in LapLink (or in Windows).

Minimize background noise, if possible

Try moving your microphone away from telephones, loud computer power supplies, radios, and so on. Move your speaker and microphones farther apart.

If the person you're talking to hears a lot of noise in your background or doesn't hear your voice, you might want to reset your environment level using the Levels tab (Voice Chat Options).

Tips for improving Voice Chat performance

Perform the tests on the Levels tab (Voice Chat Options) to get the best performance. Adjust transmission quality to match the conditions of the connection: On the Advanced tab of Voice Chat Options (Options menu) click Low if you are talking over a modem or other slow connection. Click High if you are talking over a network or other fast connection.